PRINTING EQUIPMENT ENGINEER

SEPTEMBER • 1933

● A Technical Publication for Mechanical Executives Responsible for Printing Production, Equipment and Supplies

THE CHICAGO TRIBUNE *decides*

After exhaustive investigation and prolonged tests . . . the Tribune orders 34 Goss High Speed Units for black printing . . . 7 additional Goss Color Units . . . 8 pairs Goss Folders

● After extensive tests the Chicago Tribune has specified Goss Presses in one of the largest orders ever placed for printing equipment by any newspaper.

● The problem of handling the great Tribune circulation admits of no mistakes . . . no indulgence of personal preference or prejudice in the face of facts and figures. No machine fits the Tribune plant unless it delivers the goods, and continues to do so under all practical operating conditions.

● *This order, consequently, means only one thing — that Goss Presses have proved their superiority under tests of practical, competitive performance in the Tribune press rooms.*

● Especially significant is the purchase of additional Goss Color Units — equipment of the type on which all Tribune color printing has been done.

● Much has been said and written regarding color presses, and many claims have been made. Recognizing the practical difficulties in the path of successful newspaper color printing, the Goss Research and Engineering Department has preferred to content itself with promises safe in their moderation. The Tribune, for its part, has been eminently open-minded, and has overlooked little or nothing that would further its purpose.

● These additional Goss Color Presses have been ordered, not on promises nor ballyhoo, but on the basis of actual performance.

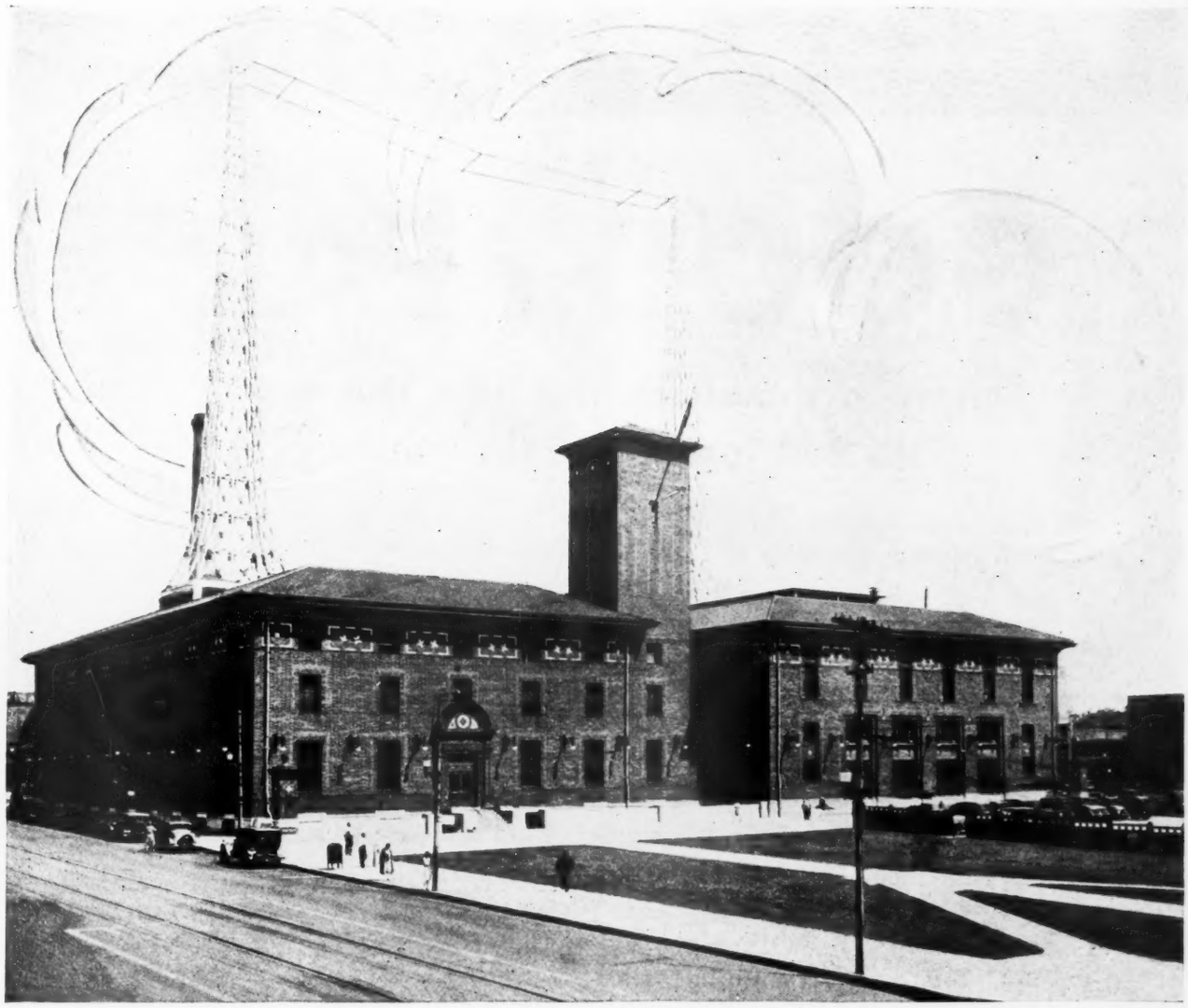
GOSS

STRAIGHT LINE — GOSS HIGH SPEED

THE GOSS PRINTING PRESS COMPANY
CHICAGO, ILLINOIS
NEW YORK OFFICE: 220 EAST FORTY-SECOND ST.
SAN FRANCISCO OFFICE: 707 CALL BUILDING
THE GOSS PRINTING PRESS COMPANY
OF ENGLAND, LTD., LONDON

NRA MEMBER U.S. WE DO OUR PART

THE KANSAS CITY STAR



THE KANSAS CITY STAR purchased their first Stahi Former in 1928, establishing the principle of controlled vacuum "Forming" and electric scorching of dry mats, thus eliminating primitive scorchers. In 1930 they purchased the next model Stahi, and in 1933 The Stahi AUTOFORMER with automatic operation, was shipped to them, indicating their faith and enthusiasm in the performance of our machinery. Owner loyalty so great they bought each succeeding model produced. Stahi Dry Mat Forming Machinery began where primitive scorchers left off---repeated none of their mistakes. It sets a new pace in quickly and accurately providing Uniform Casting and Printing Levels. Automatic operation, cutting out economic waste, and lowering production costs.

STAHI NEWSPAPER SUPPLY COMPANY, Inc.

Portland, Oregon Seattle, Washington Los Angeles, California

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GOSS PRINTING PRESS COMPANY, General Agents
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GOSS PRINTING PRESS COMPANY, LTD.
London, England

TORONTO TYPE FOUNDRY CO., LTD.
Toronto, Montreal, Winnipeg

WOOD FLONG CORPORATION
Hoosick Falls, New York

A. M. CARNEIRO & CO.
152 W. 42nd St., New York City
South American Representatives

A NEW PRESS BLANKET

BY GOODYEAR

This is to announce the new Goodyear All Red Top or Bottom Blanket

DEVELOPED primarily for use on presses where oil conditions are especially troublesome.

Can be used as a top blanket, under a draw sheet, and as an underpacking—in one or all of these applications.

A thorough test of this new blanket has been made in actual service. More than 400 were purchased by one of the largest newspaper plants in the United States. Here, the blankets were subjected to a real test—long runs, many halftone illustrations, oil conditions none too good.

Results were very satisfactory—the blankets printed better and lasted longer than previous products used.

These blankets can be made in any gauge required and are built up of plies of high grade fabric, frictioned together with an oil-resisting rubber. Both the top and bottom sides of the new blankets are coated with a newly developed, exclusive oil-proof coating.

Write today to Goodyear, Akron, Ohio, or Los Angeles, California, for complete information about this new, outstanding press blanket.

The Goodyear Tire & Rubber Co., Inc.
Akron, Ohio

Please give us further information about the new Goodyear All Red Top or Bottom Press Blanket.

Name_____

Address_____

THE GREATEST NAME IN RUBBER

GOODYEAR

NOW YOUR PRESSES CAN BE EQUIPPED COMPLETELY WITH GOODYEAR PRODUCTS

PRINTING EQUIPMENT ENGINEER

TRADE-MARK REGISTERED U. S. PATENT OFFICE. ESTABLISHED 1910.

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SEPTEMBER, 1933
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DON WILL, Publisher — MAC SINCLAIR, Editor

A TECHNICAL MAGAZINE FOR PRINTING'S MECHANICAL EXECUTIVES

Associate Member, Printing Equipment Association, Inc.

This Issue Contains:

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Harry B. Adsit

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Let others also read The Engineer

After you have read this copy, pass this magazine along to the other men in your organization. They will undoubtedly get helpful ideas from its pages.

Check in left column after reading. Note articles of interest.

☐ *Composing Room Superintendent*

☐ *Superintendent Press Room*

☐ *Chief Composing Room Machinist*

☐ *Superintendent Stereotype Foundry*

☐ *Monotype Department*

☐ *Photo Engraving Department*

☐ *Superintendent Electrotype Department*

☐ *Foreman Lithographing Department*

☐ *Bindery Foreman*

☐ *Production Manager*

☐ *Mechanical Superintendent*

☐ *Manager*

☐ *Purchasing Agent*

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Even So, He Might Hit The Ball

MANY a golfer may be able to execute a 250-yard drive without ever having seen the ball. At least one blind person has been known to do this. Hence, it is possible to learn to drive a golf ball even though unable to see.

But if all players were blindfolded, fairways and greens soon would be deserted. Even the best in the game need the unhampered use of their full faculties to score. Surely no golfer, in his right mind, voluntarily would blindfold himself before teeing off.

Neither would he long ignore the opportunity to remove such a handicap.

Yet, a disadvantage, comparable in many respects to this blindfold, exists in composing rooms not equipped with Black and White matrices.

When it comes to seeing what they are producing linecasting machine operators virtually are blinded—because ordinary brass matrices are quite difficult to read.

So the operator keeps on swinging his club in the dark. He can see his keys all right, but for all he knows he may be "topping the ball." But it no longer is necessary to keep a blindfold on an operator—*furthermore it's cheaper to let him see.*

A national survey shows that in every 100 lines of original machine composition six **(6%)** are reset because of errors—every seventeenth line is rebuilt. Assuming that only double time is necessary to correct **12%** (2×6%) of an operator's time is devoted to non-productive effort. Hence, in the average composing room, **18%** (6%+12%) of all operator-hours are spent in producing and correcting the lines which contain errors.

To this waste is added the time of proofreaders and floor men in detecting errors and placing corrections.

But the blindfold can be removed. It isn't necessary to rebuild every seventeenth line. By having your present matrices treated with the Black and White process—*making reference characters plainly visible in the assembler*—a significant proportion of error waste can be prevented.

This isn't just guess work. We *guarantee* a 25% reduction in all errors in original machine composition and *prove this saving* before you pay us a penny.

Matrix Contrast Corporation

Empire State Building New York City

Sole licensees of the Percy L. Hill Black and White Patent No. 1466437, held valid by U. S. District Court, Eastern District of New York. Infringers will be vigorously prosecuted.

PRINTING EQUIPMENT ENGINEER
SEPTEMBER, 1933

The Printing Equipment Code

[AN EDITORIAL]

THE mechanical executive has a vital interest in the Code of Fair Practices which has been recommended for adoption by the Printing Equipment Association, since he is directly concerned with the selection of new machinery and the disposal of depreciated or obsolete printing plant equipment. This is apparent when latest information received by PRINTING EQUIPMENT ENGINEER indicates that the newly-organized Printing Equipment Association, Inc., represents 90 per cent of the industry in sales, investment and employees. It is more than likely that additional manufacturer-membership applications will be received so that subscription to the Code will be 100 per cent.

What may be considered drastic rules of procedure in the selling of equipment are incorporated in and made a part of the Code. One of the important provisions from the viewpoint of the mechanical executive, we are glad to state, provides that it shall not be considered unfair trade practice to install newly-developed machines or equipment in a customer's plant for the purpose of testing operation under practical conditions. Many mechanical executives have been of valuable assistance to the manufacturer in refining new mechanisms and eliminating "bugs" which cannot be anticipated in the laboratory. Any stringent regulations (promulgated either by government or through other sources) intended to allay progress in the development of machine design would be disastrous to the printing industry. Unofficially, too, we understand that it is not the intention of government to adopt a drastic policy with respect to the installation of new equipment. General Hugh S. Johnson is quoted as saying:

> I think that the necessary installation of new equipment should go forward. If you stop inventiveness and progress that would be very stupid. I do think that for a short period it would be wise not to emphasize the installation of machinery that would tend further to reduce the field of employment. But it is not our purpose to stop economic progress.

In the course of events, under the new era of business, it is inevitable and it will be necessary to revamp equipment after the deterioration which has been permitted through the past lean years. This might be done by installing new machinery to replace the obsolete so your employer may be able to compete with his competitors who are in a more fortunate position. It might also be found advisable to modernize the plant for the same purpose. The new shortened hours of labor will also have a direct bearing in many cases on the machinery question.

From time to time we have pointed out the menace threatening the printing industry because the market is glutted with depreciated and obsolete printing equipment. Never has it been contended, however, that used machinery which has not exhausted residual assets or is not of obsolete design, could not be reconstructed in order that it might be caused to function again productively. Quoting from the Code: "The replacement period commences when, through excessive use or improper handling or abuse or because of age or obsolescence, the machine or equipment ceases to be an economic factor in production." A plan attached to and made a part of the Equipment Code provides, through manufacturers' schedules as well as through a schedule based on a progressive rate of depreciation, a way to evaluate machinery which is about to be made part of a transaction whereby new machinery will be installed in place of the old. One of several options for the disposal of the released machinery may be exercised according to the stipulations set forth in the Code:

> The manufacturer or seller accepting the machinery in trade (1) will destroy it if it is incapable of further economic production and thus prevent its re-entry into other business enterprises, or (2) if it still has economic value it may be taken back to the seller's factory, rebuilt or reconditioned and (3) the manufacturer will deal direct with his customers with only new, or factory rebuilt or reconditioned machinery, leaving the field for used machines open to the second-hand dealers.

As to the valuation which is to be placed on used equipment, we urge our mechanical executive readers to study the recommended formula. There has been, in the past, the temptation to value old equipment at too high a figure. With the standards set by the Code an intelligent and universal method is provided to arrive at the true value of any kind of equipment. It guarantees the same treatment to the small purchaser as well as the large user. It also guarantees that the manufacturer from whom your employer buys his equipment will not be a party to unfair competition by furnishing equipment to other printers at more favorable credit rates.

Through an understanding of the Code the mechanical executive will be in a position to assist his employer to elevate the production standards of the industry so that both he and his employer and all the people working for him will be able to earn a better living with less expenditure of mental and physical energy. At the same time they will encourage the manufacturer to perpetuate his experimental laboratory to the end that the Printing Industry will maintain its rightful place in the vanguard of progress.

NRA MEMBER U.S. WE DO OUR PART

Tentative Code for Equipment Manufacturers

As Adopted August 8 by Board of Directors of Printing Equipment Association, Inc., in New York City

As was announced in the August PRINTING EQUIPMENT ENGINEER, the Printing Equipment Association, Inc., was formed in New York on July 21 by approximately thirty concerns engaged in the manufacturing and dealing in machinery, equipment and supplies used in the Graphic Arts.

Since that time, the report of the Committee on a Code of Fair Competition, appointed by Arthur Bentley, President of the Printing Equipment Association, Inc., was presented to the Board of Directors. The Board of Directors, meeting in New York on August 8, approved the Code and recommended its adoption by members of the Association and the printing equipment industry.

One of the most important features of the Code is incorporated in Article 8. In compliance with its intentions, the Committee endorses the recommendations of the Committee on Used Machinery and makes as a part of the Code the plan submitted by that Committee for the solution of the used printing machinery problem.

At a meeting of the Association held at the Hotel Vanderbilt, New York, on August 28, Secretary Bennet reports that fifty members were present and the meeting lasted thirteen hours. Every phase and provision of the proposed Code and the Plan for Used Machinery were discussed. Some minor changes in phraseology were made for the purpose of clarification. The Code, including the Plan for Used Machinery, was adopted unanimously. The Code as printed in this issue of the ENGINEER does not contain the revisions mentioned above.

Arthur Bentley, President of the Miehle Printing Press Mfg. Co.; Thomas R. Jones, President of the American Type Founders Co.; Joseph T. Mackey, Executive Vice President of the Mergenthaler Linotype Co., and James E. Bennet, President of the Babcock Printing Press Mfg. Co., being respectively President, Vice President, Treasurer and Secretary of the Printing Equipment Association, have been designated a committee to prosecute the negotiations for the acceptance of the Code by the National Recovery Administration.

In making its report to the Board of Directors it is stated that the Committee considered with care all observations made in the matter of loaning or placing machines on trial. After careful examination into this question, it reached the conclusion that the placing of machines and/or equipment on trial or the loaning of machines and/or equipment or the placing of machines and/or equipment under optional conditions tantamount to trial, would be an unfair trade practice in that it would permit a customer or a prospective customer to produce saleable product during the trial, loan or option period at reduced costs and thus give the customer or prospective customer an advantage over his competitors. Beyond this, such practice provides a motive for granting of rebates or allowances on the basis that the machines and/or equipment so placed would, through use, be subject to resale as other than new machinery and/or equipment and such action would also involve the possible waiving of items of reimbursement which would ordinarily be made, such as freight, erection; and, further, provide an opportunity for reduction in price, etc., to effect retention.

It was felt that the seller or owner of such machines and/or equipment so placed would, therefore, be subject to the temptation of making unwarranted concessions to overcome possible losses in removing the machines and/or equipment after the trial or loan or option period had expired.

The Committee felt, however, that no restriction should apply against the installation of newly-developed machines and/or equipment in a customer's plant for the sole purpose of testing their operation under practical working conditions.

The Code as submitted to and approved by the Board of Directors is as follows:

A CODE OF FAIR COMPETITION FOR THE PRINTING EQUIPMENT ASSOCIATION INC.

1 — Purpose

To effectuate the policy of Title I of the National Industrial Recovery Act, as approved by the President of the United States, June 16, 1933, insofar as it is applicable to the Industry, the following provisions are established as a Code of Fair Competition for the Printing Equipment Association, Inc. Membership in the Printing Equipment Association, Inc., shall be open to any individual, firm or corporation engaged within the United States, in manufacturing and/or dealing in machinery, equipment and supplies (except as noted below) used in the Graphic Arts Industry, and in carton plants, or used in printing or lithographing on tin, aluminum, or similar metals.

2 — Definitions

The "Graphic Arts Industry," as herein used, is defined to mean all business enterprises engaged wholly or in part in the art of preparing for representing and/or representing objects through mechanical means by the processes of printing and lithographing on paper, cardboard or similar materials and/or by additional processes, completing the printed or lithographed materials into finished products. The supplies intended to be excluded are paper and paper products, ink, materials for electrotypers, photo-engravers and similar plate-making supplies; and cloth, cordage, glue and similar bindery supplies. The terms "employes" as used hereunder shall mean all persons employed in the conduct

PRINTING EQUIPMENT ASSOCIATION, INC., MEMBERSHIP LIST

Following is a list of members of the Printing Equipment Association, Inc., arranged alphabetically. The list is complete as of August 29. As other memberships are approved the names will be added to the list.

A
Acme Multi-Color Company
American Type Founders Co.

B
Babcock Printing Press & Mfg. Company
Russell E. Baum
Berry Machine Company
Boston Wire Stitcher Company
Brandtjen & Kluge, Inc.

C
Challenge Machinery Company
Chambers Brothers Company
Chambon Corporation
Chandler & Price Company
Claybourn Corporation
Cleveland Folding Machine Co.
Cline Electric & Manufacturing Company
Cochrane-Bly Company
C. B. Cottrell & Sons Company
Cross Paper Feeder Company

D
Davidson Perforator Corporation
Dexter Folder Company
J. E. Doyle Company

G
Wm. Gegenheimer, Inc.
C. W. Gorton
John Griffiths Company, Inc.

H
Hacker Manufacturing Company
Hamilton Mfg. Company
Harris-Seybold-Potter Company
C. B. Haywood
Heidelberg Printing Mach. Corp.

I
Intertype Corporation

K
Kohler Brothers

L
Lanston Monotype Machine Co.
H. & L. Levy
Liberty Folder Company
Lindbladh Corporation
Ludlow Typograph Company

M
J. L. McKettrick
Mergenthaler Linotype Company
Miehle Printing Press & Mfg. Co.
Miller Printing Machinery Co.
Montgomery & Bacon
Morgans & Wilcox
E. G. Myers

N
New Era Manufacturing Co.

O
Ostrander-Seymour Company

P
Printers Mat Paper Supply Co.
Printing Machinery Company

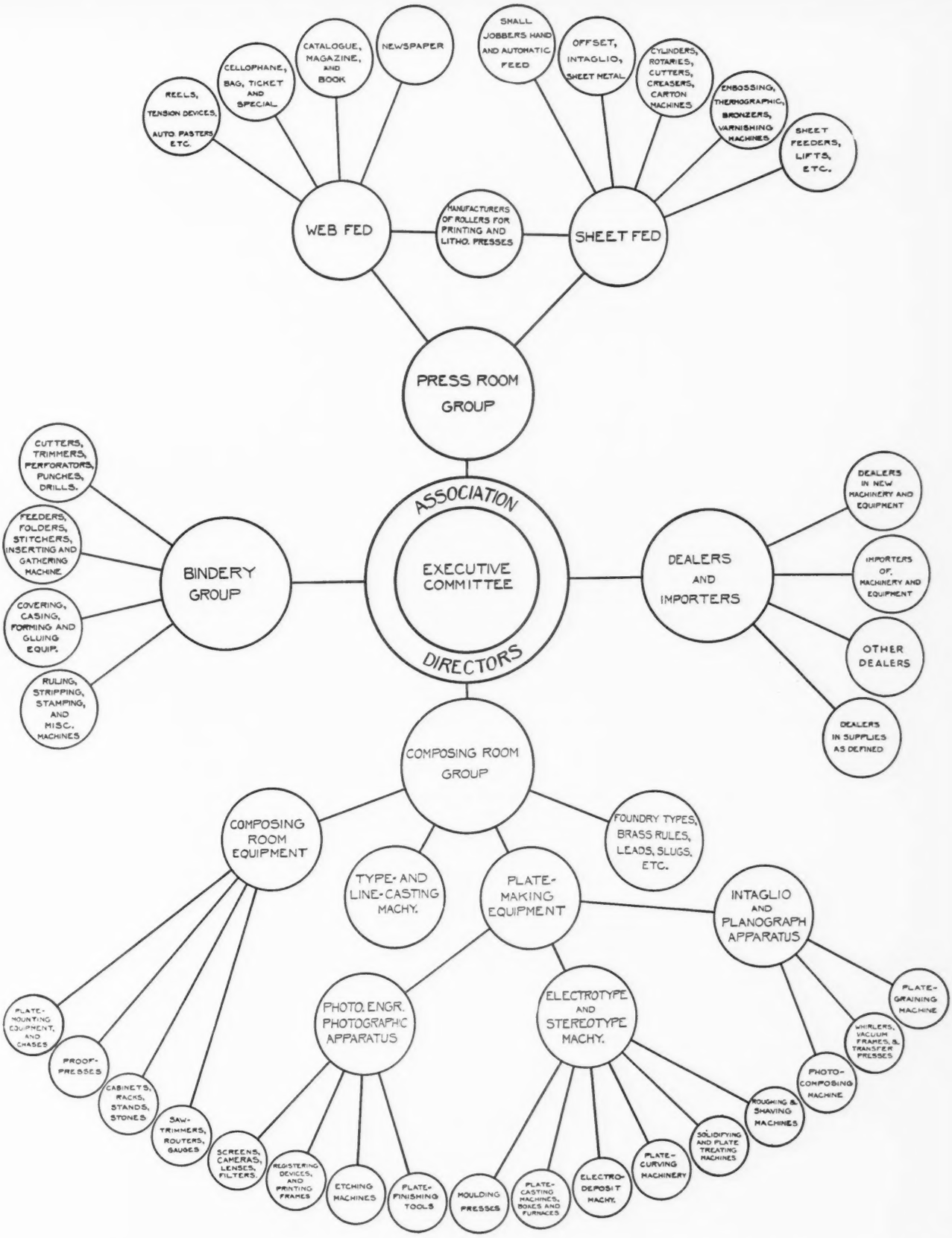
R
F. F. Rosback Company
H. B. Rouse & Company

S
J. H. Schroeter & Brother, Inc.
Chas. N. Stevens Company
T. W. & C. B. Sheridan Company
Simcoe Manufacturing Company
Smyth Manufacturing Company
Southworth Machine Company

T
Teletypesetter Corporation

U
U. P. M. Kidder Press Company

W
Webendorfer-Wills Company
F. Wesel Manufacturing Company
W. S. Warnock Company
John Waldron Corporation
Wanner Company



This chart is well worth studying. It can be read in two ways: (1) From the viewpoint of the Printing Equipment Association, Inc., to show the related and dependent industries in the equipment field which come within the scope of its membership, and (2) major mechanical groups in the printing industry, showing interdependency of other divisions, without which the three major mechanical groups could not survive.

Courtesy of Printing Equipment Association, Inc.

OFFICERS AND DIRECTORS OF THE NEWLY-FORMED PRINTING EQUIPMENT ASSOCIATION, INC.:

OFFICERS:

ARTHUR BENTLEY, *President*
THOMAS R. JONES, *Vice President*
JOSEPH T. MACKEY, *Treasurer*
JAMES E. BENNET, *Secretary*

DIRECTORS:

JAMES E. BENNET, President of the Babcock Printing Press and Manufacturing Company.
ARTHUR BENTLEY, President of the Miehle Printing Press and Manufacturing Company.
HARVEY D. BEST, President of the Lanston Monotype Machine Co.
LEGRAND L. CLARK, President of the T. W. & C. B. Sheridan Company.
L. W. CLAYBOURN, President of the Claybourn Corporation.
CALVERT COTTRELL III, President of C. B. Cottrell and Sons Company.
JAMES S. GILBERT, President of the Dexter Folder Company.
THOMAS R. JONES, President of the American Type Founders Company.
JOSEPH T. MACKEY, Executive Vice President of the Mergenthaler Linotype Company.
R. V. MITCHELL, President of the Harris-Seybold-Potter Company.

There are three vacancies on the Board. These places have been reserved for representatives of groups which it may later appear have now insufficient representation or for representatives of sections of the industry which may combine to form their own associations and then become associate members of the Printing Equipment Association.

of such operations including clerical and office employes and executives. The membership of the aforesaid Association represents __ per cent of the entire industry for which it speaks. "Administration" means National Industrial Recovery Administration.

3 — Authority

(*a*) The authority to administer this Code shall be under the direction of the Board of Directors of the Printing Equipment Association, Inc. The Board of Directors or the Executive Committee, if so delegated by the Board, shall have all the power and duties conferred upon it by this Code, and generally all such other powers as shall be necessary to enable it fully to administer the Code to effectuate its purpose.

Liaison

(*b*) By authority delegated to it by the Board of Directors, the Executive Committee is hereby constituted the official body of the membership of the Printing Equipment Association, Inc., to cooperate with the Administration of the National Industrial Recovery Act, as a planning and fair practice agency to report conditions as they develop from time to time and to cooperate with said Administration in avoiding the promotion of monopolies and the oppression of, or discrimination against, small enterprises and in such other matters as will best serve to effectuate the policy of the National Industrial Recovery Act.

4 — Statistics and Costs

With a view of keeping the President of the United States of America and the Administration of the National Industrial Recovery Act informed as to the observance or non-observance of this Code, and as to whether the Printing Equipment Association, Inc., is taking all appropriate steps to effectuate in all respects the declared policy of the National Industrial Recovery Act, all subscribers to this Code shall keep adequate and proper accounting records, and such other necessary records as will enable them to prepare and furnish, in the event of a Presidential decree, pursuant to the National Industrial Recovery Act, accurate data on prices and costs, capacity, orders, and stocks on hand of finished goods and raw materials, the number of persons employed, with their rates of wages, earnings and hours of employment, etc.

Statistical Data Confidential

Except as otherwise provided in the National Industrial Recovery Act, all statistical data and costs filed in accordance with the provisions of this Article shall be confidential.

5 — Rights of Labor

Employers in the Printing Equipment Association, Inc., shall comply with the requirements of Section 7 — (*a*) of Title I of the National Industrial Recovery Act as follows: (1) That employes shall have the right to organize and bargain collectively through representatives of their own choosing, and shall be free from the interference, restraint, or coercion of employers of labor, or their agents, in the designation of such representatives or in self-organization or in other concerted activities for the purpose of collective bargaining or other mutual aid or protection; (2) that no employe and no one seeking employment shall be required as a condition of employment to join any company union or to refrain from joining, organizing, or assisting a labor organization of his own choosing; and (3) that employers shall comply with the maximum hours of labor, minimum rates of pay, and other conditions of employment, approved or prescribed by the President.

(3a) It is clearly understood that the foregoing paragraphs do not impair in any particular the constitutional rights of the employe and employer to bargain individually or collectively as may be mutually satisfactory to them, nor does it impair the joint right of the employer and employe to operate an open shop.

(3b) Nothing in this Code is to prevent the selection, retention, and advancement of employes on the basis of their individual merit, without regard to their affiliation or non-affiliation with any labor organization.

6 — Hours of Labor and Rates of Pay

(*a*) The maximum number of working hours for employes shall not exceed forty (40) hours a week, except for executives, their immediate assistants and secretaries, heads of administrative departments, factory and office supervisory staffs, technical engineers (provided that no person receiving less than thirty-five ($35.00) dollars per week shall be considered to come under any of the foregoing excepted classifications), plant protection, maintenance and repair men (electrical and mechanical, where necessary in case of breakdowns), outside service men and field salesmen, provided nothing herein shall limit the hours of operation of any machine or machines, and provided further, that such limitations shall not apply in cases of dire emergency. The minimum rates of pay for males shall be forty (40c) cents per hour in cities of 500,000 population or more, and thirty-five (35c) cents per hour in cities of less than 500,000 population. The minimum rates of pay for females shall be thirty (30c) cents per hour; provided always that whenever males and females perform identical duties under identical conditions, this Code shall assure equal pay for equal work and equal opportunity for equal ability regardless of sex; provided, however, that casual and incidental labor, apprentices, junior clerks, office boys and messengers, may be paid not less than seventy-five per cent (75%) of such minimum wages, but the total amount paid by an employer to such casual and incidental labor, apprentices, junior clerks, office boys and messengers, shall not exceed in any calendar month seven and one-half per cent of the total wages paid to all employes by such employer.

Prohibition of Child Labor

(*b*) On and after the effective date of this Code, employers shall not employ any minor under the age of sixteen (16) years.

7 — Unfair Competitive Practices

Unfair competition under this Code shall be deemed to comprise any of the following acts or practices:

1. Any and all non-compliance with the By-Laws or Code of the Association.

2. Making excessive trading allowances for products, for the purpose of securing competitive advantage:

(*a*) Every Manufacturer and/or Dealer and/or Importer shall establish his own maximum allowances for machines of his own manufacture and/or equipment accepted in trade as part of the purchase price of new machines and/or equipment. He shall file with the Printing Equipment Association, Inc., a schedule of such allowances and shall not allow in excess thereof until changes are made therein as provided in section (*c*) following.

(*b*) The Printing Equipment Association, Inc., shall, on request, furnish to every Manufacturer and/or Dealer and/or Importer a copy of the schedules of allowances filed in accordance with (*a*) above and no Manufacturer and/or Dealer and/or Importer shall accept in trade any used machines and/or equipment at an allowance greater than the maximum so filed by the respective Manufacturers and/or Dealers and/or Importers.

(*c*) In order to effect changes in his allowance schedule as provided in (*a*) above and at least ten days before the revised schedule of maximum allowances shall become effective, the Manufacturer and/or Dealer and/or Importer shall file notice of such revision of maximum allowances including a schedule thereof with the Printing Equipment Association, Inc., at its head office.

(*d*) For a period of ten days following the filing of the notice of revised maximum allowances by the Manufacturer and/or Dealer and/or Importer, the superseded maximum allowance shall prevail.

3. Wilfully selling for use in the domestic market or offering to sell for domestic use any machinery and/or equipment at a price or upon terms or conditions that will result in the customer paying to the seller for the goods received, less than their share of every ascertainable cost in the complete operation of the business, such costs to be ascertained by a clearly defined formula to be recommended by the Directors of the Printing Equipment Association, Inc. This clause shall not apply to bona fide discontinued lines.

(*a*) Every Manufacturer and/or Dealer and/or Importer shall establish his own list prices for his machinery and equipment and the list prices for regularly listed machinery and equipment shall be filed with the Printing Equipment Association, Inc. The list prices so filed shall remain in effect and no deviation may be made from them, until changes are made as provided in section (*c*) following. It shall then be considered an unfair trade practice to sell any such machinery and equipment at prices below those filed with the Printing Equipment Association, Inc.

(*b*) Upon the written application of any Manufacturer and/or Dealer and/or Importer, holding membership in it, the Printing Equipment Association, Inc., may furnish to such concerns manufacturing or dealing in similar equipment a copy of any price lists so filed with it.

(*c*) In order to effect changes in the prices filed as provided in (*a*) above, and at least ten (10) days before new prices shall become effective, the Manufacturer and/or Dealer and/or Importer, shall file notice of change, including a schedule of new prices, with the Printing Equipment Association, Inc., at its head office.

(*d*) For a period of ten (10) days following the filing of notice of price change by the Manufacturer and/or Dealer and/or Importer the superseded prices shall prevail.

Terms of Sale

4. Selling machinery and/or equipment on terms of less than (*a*) 25 per cent cash of the list prices and liquidation of the residual indebtedness over twenty-four equal and consecutive monthly payments, represented by purchase money notes or other form of security, bearing interest at the rate of not less than 6 per cent per annum;

(*b*) Except that in the case of a business established two or more years, with satisfactory credit standing, a Manufacturer and/or Dealer and/or Importer may within his own discretion extend terms of not less than 15 per cent in cash of the purchase price and liquidation of the residual indebtedness over thirty-six equal and consecutive monthly payments represented by purchase money notes or other form of security, bearing interest at the rate of not less than 6 per cent per annum.

(*c*) In the case of newly established businesses, terms of payment shall be 33 1/3 per cent cash of the list prices and liquidation of the residual indebtedness over twenty-four equal and consecutive monthly payments represented by purchase money notes or other form of security, bearing interest at the rate of at least 6 per cent per annum;

(*d*) But in the event that such newly established businesses can produce satisfactory credentials of financial responsibility, evidencing their ability to liquidate the indebtedness, then and in that event Manufacturers and/or Dealers and/or Importers may in their discretion accept a cash payment of not less than 25 per cent of the list prices and the liquidation of the residual indebtedness over thirty equal and consecutive monthly payments, represented by purchase money notes or other form of security, bearing interest at the rate of 6 per cent per annum. In transactions involving a trading allowance for used machinery and/or equipment, the percentage of cash payments herein outlined shall be calculated on the net list prices after deducting the trading allowance.

Open Accounts

Credit for supplies of a consumable nature shall be extended within the discretion of Manufacturers and/or Dealers and/or Importers. To avoid unsatisfactory and unsound practices, settlement shall be due not later than the fifteenth day of the month following shipment. Such accounts not paid within sixty days should be subjected to an interest charge at the rate of at least 6 per cent per annum; if not paid within ninety days, further extension of credit to such delinquents shall be forfeited within the discretion of the Manufacturers and/or Dealers and/or Importers. Discount rates for prompt payment may be established by Manufacturers and/or Dealers and/or Importers and schedules thereof filed with the Association. They shall not be exceeded after such filing without notifying the head office of the Association and filing revised schedules. Upon written application by any Manufacturer and/or Dealer and/or Importer the Association may furnish to such applicants a copy of such discount schedules.

5. Any false, or misleading advertising, guarantee or claim concerning a product.

6. Any malicious statements in defamation of a competitor's product, personnel, credit, or financial responsibility.

7. Compelling the purchase of a group of products as a consideration of purchase of one or more products.

8. Selling rebuilt, reconditioned, overhauled or used products as and for, new.

9. Fictitious bidding for the purpose of deceiving competitors or purchasers, or any attempt — through connivance — to have all bids rejected to the end that a more advantageous position may be secured in new bidding.

10. Unauthorized use or simulation of products or symbols of competitors.

11. Using concealed subsidiaries or agents, ostensibly independent, to secure competitive advantage.

12. Lavish entertainment of customers or prospective customers, their employes or others acting for them.

13. Inducing employes of competitors to violate their contracts or enticing away employes of competitors with a view of hampering or embarrassing competitors in the conduct of their business.

14. Procuring the business or trade secrets of competitors by espionage or by bribing their employes or others, or by similar means.

15. Widespread threats to the trade and others of suits for patent infringement arising from the sale of alleged infringing products of competitors, such threats not being made in good faith but for the purpose of intimidating the trade and hampering competition.

16. Obliterating, removing, damaging or destroying or altering or tampering in any manner with trade names or trade-marks or serial numbers of products with the intent of destroying the identity of origin of manufacture and misrepresenting such products for gainful advantage.

17. False claims by a dealer in domestic products of being an importer, or by a dealer of being a manufacturer, or by a manufacturer of some product of being also the producer of the raw material entering into the manufacture of said product.

18. Securing in any unfair manner customer's or prospective customer's signature to a contract through representation that it is merely an order on approval or otherwise.

19. Aiding, suggesting, inducing or securing breach of a contract between a customer and a competitor.

20. Directly or indirectly tampering with or misadjusting a competitor's products in order to discredit them with a customer.

21. For the purpose of hampering or eliminating competition, the granting, or agreement to grant, allowances, rebates, refunds, commissions, cancellation of notes or accounts without payment, or unearned discounts, whether in the form of money or otherwise, or extending to certain purchasers special services, privileges or concessions not extended to all purchasers, such as among others the following:

(*a*) Permitting purchasers to retain without charge machines and/or equipment or any part thereof for which an allowance has been made.

(*b*) Furnishing of material or labor or incurring other expense without adequate and proper charge.

(*c*) Furnishing, without charge, inspection, erection, adjustment or other service for which a charge should ordinarily be made; or furnishing such services, etc., at less than an adequate and proper charge.

(*d*) Allowing preferential discounts or allowing discounts outside of the discount period.

(*e*) Placing machines and/or equipment on trial or placing or loaning machines and/or equipment under optional surrender conditions tantamount to trial; provided that it shall not be construed unfair trade practice to install newly developed machines or equipment in a customer's plant for the purpose of testing their operation under practical working conditions.

(*f*) Absorbing freight and/or other transportation charges, etc., not included in prices of products.

(*g*) Permitting assignment of contracts for products not yet delivered to buyer, and agreeing to give to a new buyer the benefit of payments made or other credits established by the original buyer.

(*h*) Giving credits through allowances for advertising where advertising of value justifying the allowance is not received.

(*i*) Selling or offering to sell machines or equipment or any part thereof for customer's account and then accepting, by assignment and without recourse, the deferred part of the sales price as a credit in another transaction.

(*j*) Selling new products as demonstration, exhibition, rebuilt, reconditioned, overhauled or used machinery and/or equipment below price of new products.

(*k*) Making allowances for used machines or equipment which have been in customer's or prospective customer's possession for less than six months, or furnishing customer or prospective customer with old machines and equipment or assisting customer or prospective customer to obtain such machines or equipment, for trading purposes.

(*l*) Bribing in any form or splitting commissions with purchasers or prospective purchasers, their employes or others acting for them.

(*m*) Subsidizing public officials, or employes, or customer's employes or prospective customer's employes, or their relatives, through employing or offering to employ them under such circumstances as to enlist their interest in situations in which by virtue of their positions they may be called upon to and may act in a manner to hamper or eliminate competition.

(*n*) Using any device or scheme whatsoever to create the impression in the minds of customers or prospective customers or others representing or acting for them, that they are being offered opportunity to make purchase under unusually favorable conditions, in a manner to hamper or eliminate competition.

8 — Surplus Machines

The Printing Equipment Association, Inc., proposes to organize from among such of its members as are manufacturers of new machinery and equipment, a corporation to cope with the very serious problem of used surplus machines and equipment with which it is confronted, and without a solution of which the stabilization of labor will be greatly affected, in accordance with an outline plan, a copy of which is attached hereto and made a part hereof and marked "Exhibit A." (*Ed. Note* — The story on the Printing Equipment Sales Corporation will be found on this page.)

9 — Separability

If any provision of this Code is declared invalid, or unenforceable, the remaining provisions shall nevertheless continue in full force and effect, the same as if they had been separately presented for approval and approved by the President.

10 — Cancellation and Amendment

This Code and all the provisions hereof are expressly made subject to the right of the President, in accordance with the provisions of Clause 10 (*b*) of the National Industrial Recovery Act, from time to time to cancel or modify any order, approval, license, rule or regulation, issued under Title I of said Act, and specifically to the right of the President to cancel or modify his approval of this Code or any conditions imposed by him upon his approval hereof.

Such of the provisions of this Code as are not required to be included therein by the National Industrial Recovery Act, may with the approval of the President, be modified or eliminated as changes in circumstances or experience may indicate. It is contemplated that from time to time supplementary provisions to this Code or additional Codes will be submitted for the approval of the President to prevent unfair competition in price and other unfair and destructive competitive practices and to effectuate the other purposes and policies of Title I of the National Industrial Recovery Act consistent with the provisions hereof.

Effective Date

This Code shall become effective not later than 15 days after the approval by the President of the United States.

Proposal to Combat Used Machinery Problem

By Printing Equipment Association, Inc., Is Made a Part of the Code of Fair Competition—Includes Basis for Machine Valuation

A COURAGEOUS plan of procedure to deal with the used and surplus machinery menace which confronts the printing industry is proposed and made a part of the Code of Fair Competition for the recently organized Printing Equipment Association, Inc., which is composed at the present time of approximately 90 per cent of the equipment manufacturing industry in point of sales, investment and employes.

The plan for dealing with the surplus and used printing machinery problem comprehends organization of a Printing Equipment Sales Corporation from among the members of the Printing Equipment Association, Inc., who are manufacturers of new machinery and equipment.

In making its report, the Committee on Used Machinery states in simple language that the plan would operate as follows:

When the printer or publisher buys new equipment and offers to trade in used equipment this will be valued at not over a certain definite amount based on a fair and broad scale of valuation rates. The manufacturer or seller accepting the machinery in trade:

(1) will destroy it if it is incapable of further economic production and thus prevent its re-entry into other business enterprises, or

(2) if it still has economic value it may be taken back to the seller's factory, rebuilt or reconditioned and

(3) the manufacturer will deal direct with his customers with only new, or factory rebuilt or reconditioned machinery, leaving the field for used machines open to the second-hand dealers.

If the printer or publisher wishes to dispose of surplus equipment, or if there is a liquidation or auction sale such equipment can be accepted by the new Corporation which will issue to the owner of the used machinery and equipment Certificates for its agreed value. These Certificates of Value will be negotiable among printers or others who are or may be in the market to buy new machinery and equipment and when they do make such purchase they can turn over to the seller these equipment Certificates up to 10% of the purchase price of the new machinery and equipment.

The manufacturers or dealers who honor these Certificates will, when they receive them, send them to the Printing Equipment Sales Corporation for cancellation. It is believed that this plan will work greatly to the advantage of those who dispose of their old machinery and equipment to dealers and to the manufacturers of the new machinery and equipment.

A study of the detailed plan attached hereto will, it is also believed, be very convincing of the great importance of this plan toward curing the evils of this particular branch of the industry. It is suggested that it is the most fair and workable proposal ever made as a remedy for this problem, which has long been vexatious.

It is believed that many benefits will accrue to the entire industry—both consumers and producers—if the plan advocated comes into being. For instance, plant machinery asset value of printing and publishing plants would take on a more liquid aspect in the eyes of credit agencies, including banks;

thereby, through greater forbearance by creditors, preventing forced sales of plants in need of assistance in times of stress.

The present relations of dealers in used machinery with the industry would be advantageously changed as applied to the constructive work of the corporation. The hazards now affecting the price of printing through low investment, by the purchase of used machinery, and thus low price, would be overcome.

These are but a few of the benefits to be gained.

Without a satisfactory solution of the used machinery problem, the stabilization of labor will be more than difficult and many forms of service heretofore rendered to the Graphic Arts Industry may have to be abandoned; research and development work which has been so important an advantage to the industry will be seriously affected.

The proposed plan to cope with the used printing machinery problem and which is incorporated with the Code of Fair Competition, is as follows:

EXHIBIT "A"

OUTLINE OF A PLAN TO DEAL WITH THE USED PRINTING EQUIPMENT PROBLEM

Name of Organization

Printing Equipment Sales Corporation.

Object

As an aid to the Graphic Arts Industry to provide, through an authenticated source, for the disposition of all kinds of surplus used printing machinery and equipment of a capital asset nature, at fair and justifiable valuations, by acting as a negotiator between owners of such surplus machinery and equipment and prospective purchasers and otherwise.

Capitalization

Based on cash assets. Charter under New York State Laws.

Stock Subscription

To be confined to manufacturers of new machinery and equipment who are qualified members of the Printing Equipment Association, Inc.

Registrar of Stock

All stock issued shall be countersigned by a duly qualified trust company to be selected as Registrar.

Stock Redemption

Stock shall be non-negotiable. It shall be redeemable only by the Corporation.

Management and Staff

Directors, Executive Committee, President, Vice-President, Secretary and Treasurer. The Board shall set up a proper working organization.

Headquarters

Maintained at satisfactory location separate from that of any shareholder.

Selling Organization

Sales of equipment capable of satisfactory economical production shall be effected through authorized dealers who are qualified members of the Printing Equipment Association, Inc.

Advertising

Cost of printed matter and advertising will be borne by Corporation unless otherwise arranged.

Condition

Condition and completeness of equipment shall be certified by owners on appropriate forms.

Appraisal

On request, Corporation will arrange for appraisal as to condition, etc., at expense of owner or purchaser, as agreed.

Broad Basis of Valuation

Practically all printing machinery is equipped with certain perishable equipment which, in its first use, becomes immediately second-hand and of no market value to manufacturers. To meet this condition and to establish a fair value for used printing machinery and equipment, valuation rates shall be calculated from the established F.O.B. factory price for new machinery or equipment of similar model and size, as of the date of the current transaction. From the original purchase date, allowance for use shall be figured for the first year at the rate of 25 per cent from such established price; then at an annual rate of 5 per cent for eleven years; then at an annual rate of 3 per cent for four years; then at an annual rate of 2 per cent for three years; thereafter at 2 per cent as a final valuation rate; irrespective of the age after the nineteenth year period. The intent is not to recommend or propose that machinery capable of satisfactory economical production shall be disposed of merely because of age or because of valuation herein outlined, but to state broadly a fair basis of valuation to the Graphic Arts Industry as owners and to the producers of printing machinery and equipment. The replacement period commences when, through excessive use or improper handling or abuse or because of age or obsolescence, the machine or equipment ceases to be an economical factor in production. The rates of valuation herein defined shall be the accepted basis of fair dealing and of mutual helpfulness in determining its fair value. Thus, machines subject to these conditions shall be valued at the rates suggested, as follows:

Established Price, less 25 per cent at end of first year;
Established Price, less 30 per cent at end of second year;
Established Price, less 35 per cent at end of third year;
Established Price, less 40 per cent at end of fourth year;
Established Price, less 45 per cent at end of fifth year;
Established Price, less 50 per cent at end of sixth year;
Established Price, less 55 per cent at end of seventh year;
Established Price, less 60 per cent at end of eight year;
Established Price, less 65 per cent at end of ninth year;
Established Price, less 70 per cent at end of tenth year;
Established Price, less 75 per cent at end of eleventh year;
Established Price, less 80 per cent at end of twelfth year;
Established Price, less 83 per cent at end of thirteenth year;
Established Price, less 86 per cent at end of fourteenth year;
Established Price, less 89 per cent at end of fifteenth year;
Established Price, less 92 per cent at end of sixteenth year;
Established Price, less 94 per cent at end of seventeenth year;
Established Price, less 96 per cent at end of eighteenth year;
Established Price, less 98 per cent at end of nineteenth year and thereafter.

The acceptance of these rates of valuation will permit of the complete demolition of machines rated as incapable of economic production and thus prevent their re-entry into use in commercial or other business undertakings.

Storage

Equipment subject to resale: Pending sale and/or other disposition and in the interest of economy, owners should retain custody of equipment, if possible, and in operative condition.

Inspection

To be at the expense of owner or purchaser, as agreed. Purchaser should inspect machinery or equipment, subject to resale, at the time of buying and if found acceptable to so acknowledge, in writing.

Repairs and New Parts

Expense of any such to be borne by owner or purchaser, as agreed.

Delivery

All expense of whatever character incurred in the preparation for shipment and all shipping and delivery charges shall be borne by owner or purchaser, as agreed.

Erection

Cost shall be borne by owner or purchaser, as agreed.

Title

Owner shall give Bill of Sale to purchaser with guarantee as to clearness of title or as to lien or encumbrance of any nature whatsoever.

Sales Price

Shall be fixed by owners of machinery or equipment subject to resale, with due regard to the Corporation's formula as herein defined, and to the operative condition, age and modernism of design.

Terms

All cash, if possible.

Cash Discount

Rate shall be fixed by owners.

Deferred Payments

Owners shall fix the "Terms Price" and period of credit extension where sales are effected on time payment plan; Corporation to advise as to any legal limitations.

Contract and Notes

Corporation will have prepared for account of owner, on request, at his expense, which will be nominal. Advisable for Corporation to so act, considering varying legal requirements of different states.

Interest Rate

Six per cent per annum, subject to conditions of state laws.

Landlord's Lien

Where state statutes give prior lien to owners of premises for unpaid rental, Corporation will endeavor to obtain for owner customary waivers of such lien.

Insurance

Maintained at expense of purchaser pending completion of payments. Corporation shall furnish list of acceptable companies and, where existent, its interest to be noted, and Corporation to follow up securing premium receipts, renewal policies and direct adjustment of any losses.

Preservation of Lien

Where state statutes require recording or filing of contracts or mortgages taken back to secure deferred payments and renewals thereof, corporation will on request arrange for compliance with statutory requirements for owner, at his expense, which is nominal.

Collections

Unless otherwise arranged, will be made by Corporation — on proper assignment of notes and contract; all expenses (which are nominal) in connection with assignment and collection to be borne by owner. If owner is in need of cash, Corporation will, on request, endeavor to arrange for the discounting of the notes at best obtainable rates.

Remittances

Remittances to owner, as and when received from purchasers and in same kinds of money in which payment is made.

Inquiries

Shall be promptly referred to authorized dealers.

Priority of Sales

Identical equipment shall be offered for sale in order of listing as far as it may prove to be possible.

Options

Equipment subject to resale shall be exclusively committed to Corporation for six months' period.

Interim Sales

If during this six months' option period, opportunity is afforded owner to effect sale through a source other than the Corporation, owner shall convey full particulars to Corporation prior to making any commitment, thereby avoiding misunderstanding as to expense incurred or otherwise.

Owner

Identity shall remain undisclosed pending receipt of an inquiry. Listing shall be identified by Corporation's record number.

Compensation

For the purpose of providing for administrative, clerical, advertising and routine expense and, in the absence of or in addition to a fixed commission selling charge or percentage, Corporation shall be free to add to the sale price fixed by owner, a reasonable charge to cover such expenses. Corporation's fee and charges shall come, if possible, out of cash payment, or, if latter not sufficient to cover, out of cash payment and first notes paid.

Reservations

Pending completion of payments on equipment sold, the right shall be reserved to owners to withdraw from the Corporation any contract and notes, etc., lodged with it, simultaneously accounting to Corporation for its interest and expenses, if any.

Straitened Circumstances

Every effort shall be made to obtain the sales and/or other control of equipment coming upon the market as the result of defunct or bankrupt concerns or consolidations of plants.

Manufacturers

Shall furnish, on request, to Corporation any missing data available, or history of equipment listed with Corporation for sale or other disposition.

Certificates of Value

Where an owner of printing machinery and/or equipment desires to arrange for the immediate disposition of his surplus equipment, Corporation will issue — at the owner's

THANKS, MR. SALMON

Grand Rapids, Mich., August 21, 1933.

Printing Equipment Engineer,
Cleveland, Ohio.

Gentlemen: There are two bulletins listed in the July issue of your publication which I should like to receive:

Cleer-Proof Liquid Ink.

Motor Starting Switches.

We are contemplating rearranging the equipment in our composing room in the near future, and would like to get a bulletin describing annunciators for typecasting machines.

I have been an interested reader of your publication since its first issue, and have enlarged my knowledge of printing problems and equipment very materially.

Very truly yours,

GRAND RAPIDS HERALD,
FRANK J. SALMON, *Superintendent.*

request and subject to inspection as hereinbefore provided — a Certificate of Value based on the percentage values herein outlined, in full settlement for said surplus machinery or equipment, the disposition of which will then rest with the Corporation. No such Certificate, however, shall be issued for special purpose machinery and/or equipment hereby defined to be machines and/or equipment built to order from specially prepared drawings and manufactured from specially built jigs, fixtures, tools and other specially designed manufacturing equipment necessary in the manufacture of such machines, unless the Co.poration either direct or through a dealer has obtained in advance a bona-fide order on a cash basis for such machines at a satisfactory price, provided however, that in such event, Certificate of Value shall not be issued for an amount in excess of its value based on the percentage values herein outlined. The Corporation may accept Certificates of Value from dealers in connection with its sale to dealers of machinery and/or equipment coming into its absolute possession, but not in excess of ten per cent (10%) of the price at which such machinery and/or equipment is sold to dealers by the Corporation

Liquidation of Certificates of Value

Certificates of Value shall be honored by all manufacturers of printing machinery and/or equipment accepting this plan (manufacturers of special machinery excepted as hereinafter stated), but only in connection with the purchase of NEW machinery and/or equipment, exclusive of trade-ins, and then in an amount not in excess of ten per cent (10%) of the list price of NEW machinery and/or equipment of a capital asset nature purchased by the holders of the Certificates.

Manufacturers of Special Machinery

In their discretion, manufacturers of special machines may accept Certificates of Value but not in excess of ten per cent (10%) of the contract price of new special purpose machines which are defined to be machines built to order and requiring preparation of drawings and special jigs, fixtures, tools and other specially designed manufacturing equipment, necessary in the manufacture and building of such machines.

Certificates Unacceptable Except for Machinery

No Certificate of Value shall be accepted in payment for sale of supplies or equipment of a consumable nature; nor shall such Certificates be accepted in settlement of accounts or notes receivable, or other indebtedness. Certificates of Value shall not be accepted as part of a cash payment in a deferred payment transaction in excess of ten per cent (10%) of such cash payment.

Negotiability of Certificate of Value

Upon the receipt of a satisfactory written statement from the holder of a Certificate setting forth the necessity for realizing upon his Certificate of Value through a process other than receiving credit therefor in the manner herein set forth, the Corporation may consider authorizing the transfer of said Certificate to any person or persons, or institution, or corporation, excepting a manufacturer, as may be designated by the holder of such Certificate.

Disposition of Certificate of Value

The Corporation may also consider the disposing for such holder of such Certificate, for the account of the holder, on such terms and conditions as may be mutually agreed between the holder and the Corporation.

Maturity of Certificate of Value

Certificates of Value shall cease to have any value after a period of five years from the original date of issue and shall after said date of expiration be surrendered to the Corporation for cancellation.

Registration of Certificates of Value

Certificates of Value shall be void unless signed by two separate officers of the Corporation and countersigned by a responsible trust company to be selected as Registrar.

Surrender or Reduction of Certificates of Value by Manufacturers

Manufacturers honoring the Certificates of Value in connection with the sale of new products shall immediately, following receipt of settlement for said new products, forward the Certificates of Value to the Corporation for cancellation or reduction, with a complete statement of the transaction in connection with which the Certificates were taken.

Outstanding Certificates of Value

The Corporation shall send daily notices to each manufacturer accepting this plan of the issuance of Certificates and shall at monthly intervals furnish to such manufacturers a complete list of outstanding Certificates showing their current value.

Disposition of Products

Immediately upon the surrender of products to the Corporation under the proposed Certificate Plan, the Corporation will arrange for the re-sale of machinery or equipment capable of satisfactory economical production and will thoroughly destroy all products coming under its control which in its judgment have ceased to be an economical factor in production.

Notice to Manufacturers

Manufacturers shall be duly notified of the disposition of all equipment coming under control of the Corporation.

Manufacturers' Record of Equipment

Each Manufacturer endorsing this Plan shall furnish to the Corporation on forms to be prepared and readily adaptable to his business, a record of all printing machinery and/or equipment manufactured since the year 1913 showing the fiscal or calendar year in which the equipment was manufactured, model, price, style and other descriptive information identifying the age of the equipment; and in addition, the serial numbers, and thereafter shall continue to furnish such information at yearly intervals.

Purchasers of Used Machinery Through a Source Other Than the Corporation

The Corporation will cooperate with the Graphic Arts Industry in supplying the fullest information regarding any used machinery or equipment offered to the industry through any source other than the Corporation. Prospective purchasers would do well, in all cases, to indicate their intention of purchasing such machinery or equipment, so that they may have before them a complete history thereof. This should prove of valuable assistance in aiding them to reach a satisfactory decision.

New and Reconditioned Machinery

Manufacturers accepting this Plan shall confine their selling operations to new and thoroughly rebuilt and reconditioned machinery and/or equipment, thus leaving the field for used machinery and/or equipment open to dealers in such used machinery and/or equipment.

Dealers' Direct Sales and Purchases

Dealers shall report to the corporation on appropriate forms, all used printing machinery and/or equipment purchased by them or lodged with them for sale, and the disposition of such machinery and/or equipment and the condition of such disposition.

Melting Stereotype Metal By Immersion Gas Heaters

Technical Details of Equipment Designed for Use in Plant of the Medium-Sized and Smaller Daily Newspaper

By S. E. PHILLIPS*

SOME time ago we installed in our stereotype department the Kemp Immersion Melting System. Before arriving at our decision on this equipment, we gave serious thought to several important equations, namely: (1) The original cost of the equipment, (2) the operating cost, and (3) mechanical characteristics, performance, and efficiency.

Some vital points of interest may be made after the Kemp equipment has been in use for a several-month period. These are as follows:

1. The actual savings of approximately $74.00 per month in our gas bills (previous gas bills for external heating average over a twelve-month period, $105.00 per month; present gas bills with Kemp Immersion Melting, $31.00 per month, or a 70½% saving in gas.

2. A decided and noticeable improvement in the working conditions in both stereotype and composing room. These rooms are much cooler now, especially the area immediately near the furnaces; and there is a definite absence of any howling or roaring noise in the burners.

3. A positive control of the temperature of the metal is automatically maintained which as you know, prevents scorching of the metal. There is also a noticeable reduction in dross formation.

The Kemp Immersion Melting System is not new, having been originally applied, so far as newspaper work is concerned, at the plant of the New York *World* in 1930.

The installation at our plant, however, was unique in that it represented the first installation of this heating equipment in stereotype and remelt pots in use in the smaller newspaper plants.

(Continued on next page)

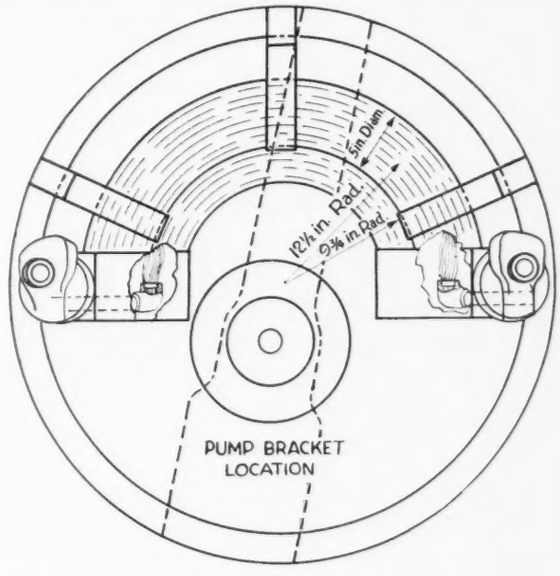


Fig. 1.—Plan view looking down into a 36 in. diam. stereotype metal pot (No. 7 Hoe) in plant of Hagerstown (Md.) Herald-Mail. *Note the gas burner flames within the Kemp Immersion Heating Element Tubes.*

*General Manager, Herald-Mail Publishing Co., Hagerstown, Md.

To understand the operation of the equipment, you must first know that an integral portion of the apparatus is the Industrial Carburetor which automatically proportions city or natural gas with the right amount of air required for perfect combustion, and delivers this combustible mixture under constant pressure to the heating elements immersed in the pots. The Industrial Carburetor is automatic in operation and delivers an amount of air-gas mixture determined by the automatic temperature control.

The air-gas mixture is led through a single pipe line; for example, 1½ in. to a No. 6 Hoe pot, and 1¼ in. to a No. 5 Hoe pot, to the single immersion heating element which provides all the heat for these units.

The immersion heating element is fabricated substantially in accordance with the accompanying diagrams, Figs. 1 and

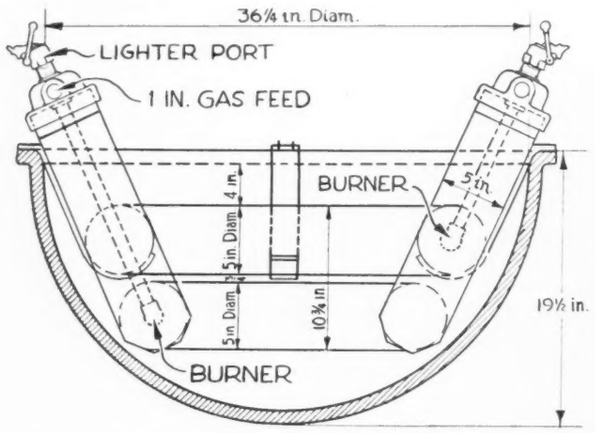


Fig 2.—Cross-sectional diagram of same pot as shown in Fig. 1, showing lighter ports and 1 in. gas feeds for Kemp Immersion Heating Element Tubes.

2. It is constructed from steel tubes bent to conform to the contour of the pot, with welded steel risers which provide for burner feeds and vents.

The construction of the element is such that a continuous circulatory passage is provided for the products of combustion. This promotes recirculation with a consequent tempering of the flame temperature and elimination of all possibility of "hot spots" on the surface of the heating element.

The spent products of combustion, after giving up all their heat, exhaust above the metal to blanket this surface with an atmosphere that contains no free oxygen or carbon monoxide. By shutting off the room atmosphere from the surface of the metal, surface oxidation or dross formation is materially reduced.

The typical heating element for a No. 6 Hoe pot (3600 lbs. capacity) is fabricated from two semi-circular pipe bends of 4 in. diameter. The heating element is so designed that the top recirculating leg is from 5 in. to 6 in. below the top of the pot, which permits an appreciable reduction in metal level without uncovering the element. The element, of course, should not be uncovered as it would then radiate heat to the room.

At first thought it might be supposed that the immersion of such a heating element into the metal would appreciably cut down the productive capacity of the pot. This is not the case, for, while the element replaces between 12% and 14% of the pot's metal capacity, the production capacity is usually increased because the immersion method of heating makes it possible to put more heat into the metal than with external firing.

Close regulation of temperature is secured with immersion melting because of the elimination of temperature over-runs and lags.

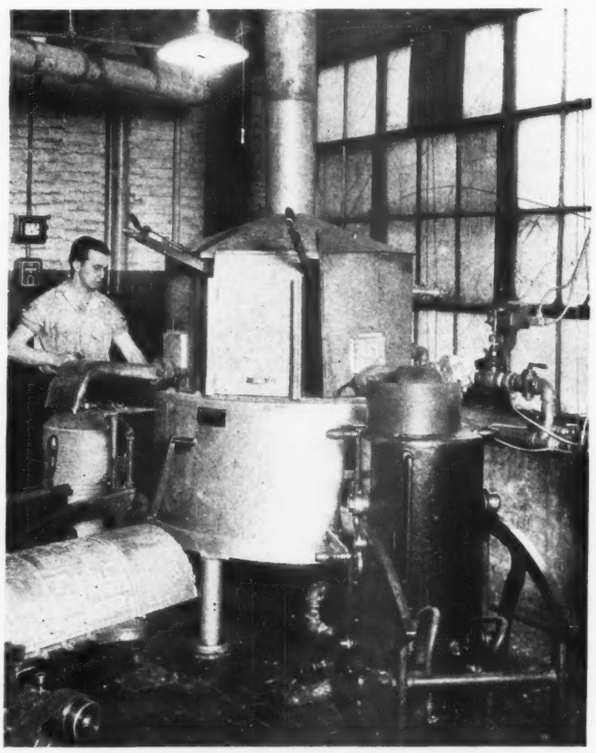
With immersion melting there is no stored heat; *i. e.*, there is no heat to flow into the metal from incandescent brick work. Consequently, when the desired temperature is reached and the control shuts the burners down to pilot light, the temperature ceases to rise. Conversely, when heat is desired, there is no temperature lag.

The reduction in dross formation which the equipment effects is traceable to several reasons. The heating element has a uniform temperature over its entire surface, consequently there is no place where the metal is being burned. The exiting products of combustion blanket the surface of the metal and keep away the oxidizing room atmosphere.

A further advantage of the equipment is the freedom from possibility of pot cracking due to uneven heating strain; because the pot merely acts as a container and is supported and insulated over its entire surface.

During the summer months we have noticed more than ever the improvement in working conditions made possible through the elimination of the incandescent furnace chamber around the pots.

The fuel economy which immersion melting effected in our plant measured in dollars and cents paid for the equipment



Installation of Kemp Immersion Heated 5-ton stereotype pot in plant of the Wilkes-Barre (Pa.) Leader.

in a little over one year's time. The other newspapers who have purchased the equipment after the success obtained in our installation, report similar savings.

To give any accurate figures on gas consumption per plate cast would mean little because of the variation in operating and production conditions in newspaper plants. The Kemp Company advises that on high production installations, average gas consumption over a period of several months show as low as 16.25 cu. ft. of 547 B.t.u. gas per plate cast.

Street With Huber

William H. Street is now connected with J. M. Huber, Inc. His headquarters at present are with the company at Master Printers' Building, Tenth Ave. at 34th St., New York, N. Y. In the near future he expects to call upon his many friends and acquaintances.

Rubber Printing Rollers— Their Use and Care

How to Adjust Rollers, Including the Ductor —Grinding and Polishing Data for Those Who "Grind Their Own"

By HARRY B. ADSIT*

This is the second and final installment of Mr. Adsit's paper on rubber printing rollers which was presented at the Fourth Conference of the Technical Experts in the Printing Industry, Printing Industries Division, American Society of Mechanical Engineers, Chicago, Ill., June 26-27. In last month's installment Mr. Adsit discussed the characteristics of and the benefits to be obtained from using rubber rollers. Initial treatment of new rollers is also suggested in this installment.

WHEN received from the manufacturer, each roller stock should be stamped with a number and a record made of the date of installation. This record should be kept carefully, including all dates of regrinding, so that at any time the pressroom foreman will have a complete history of each roller in use. Remove the wrapper, wash the roller with suds of soap and warm water and wipe dry immediately. This cleanses the surface of all foreign matter.

Before the roller is installed in the press it should be treated with regular news ink, or, better still, with a good grade of boiled linseed oil. Paint the ink or oil on the roller with a brush and let it stand for about twelve hours. Repeat this operation and, at the end of twelve hours, wipe off the surplus linseed oil which the roller has not absorbed. The roller should be placed in use immediately following this treatment: If allowed to stand too long, the linseed oil will become a hard coating and refinishing may be necessary to make the roller usable. With this treatment the roller will absorb the ink or oil to a certain degree and you will have even printing immediately.

The boiled linseed oil treatment is equally efficient with a new roller or one that has been refinished; it causes the roller to do most of its swelling before it goes into the press, which means less attention in resetting. Those who have tried this method claim that it does reduce the amount of swelling and causes it to be more even, delaying the necessity of regrinding.

SETTING RUBBER ROLLERS

The setting of rubber rollers is of primary importance in their use and care. Many rollers are injured so that they require early regrinding through improper installation and resetting. You will find that best printing will result from checking and resetting your rollers. Each pressman has his own peculiarities in setting rollers, but he undoubtedly uses either the slip-sheet method or sets rollers to a certain width against ordinary stereotype plates or special blank plates.

A rubber roller should be set as light as possible and still make positive contact with the plates. "Hard set" may bow the stock, and will cause unnecessary and uneven swelling and wear of roller sockets.

Let us first consider the ductor roller. Before you place this roller in the ductor sockets, make sure that the brackets are in alignment. An accurate method is to use a 1½-in. shaft with the ends turned down to fit the ductor roller sockets, and two 4-in. disks having a tight sliding fit on the shaft. The disks must be exactly the same diameter and about 1 in. wide. With the disks about a foot from each end of the shaft, lock it in the ductor socket as you would the roller. Release the ductor adjustment and move the press around to the high side of the cam. With the adjustment, bring the disks up to the drum until you get a slipping "feel." Align the brackets accordingly, then drop down to the fountain. If the disks do not contact the barrel equally, re-align the fountain. These adjustments should give perfect alignment between roller, fountain ,and drum. A roller set heavy on the barrel will bound, causing skipping and throwing of ink. A roller set heavy on the drum will bound and show streaks through the printed page.

Although many pressmen use the slip sheet method for setting rollers (one sheet between two other sheets or one oiled piece of craft paper), a more accurate method is to take an impression on a sheet of newsprint. The impression can be measured and compared with other settings especially where more than one pressman is setting rollers.

Many pressmen describe their setting of rollers as covering a given number of lines. If all lines of type were the same size and leaded equally, this might be accurate. Peculiar conditions in plants and varying densities of rollers make it difficult to give a positive rule for setting, but the following widths should pretty closely fit your needs for distributors, intermediates and form rollers:

7½ in. roller	24/32 in.
7 in. roller	21/32 in.
6 in. roller	17/32 in.
5 in. roller	14/32 in.
4½ in. roller	12/32 in.
4 in. roller	11/32 in.
3½ in. roller	10/32 in.

It is a good idea to completely plate the cylinder with blank dummies to set and test the coverage of form rollers.

In setting rollers, it should be borne in mind that the rubber roller is primarily a surface printer, therefore it should be set as lightly as possible to cover all the plates; it should not be set down below the surface which is to be reproduced. If plates are not up to standard and it becomes necessary to force impressions and rollers unduly "hard" to reach low spots, the consequent abuse of blankets and rollers will be expensive.

In the name of better printing, I cannot condemn too heartily the practice which is so common of attempting to overcome defects in stereotype plates in the pressroom without correcting the causes, which may lie in the engraving department, the composing room, or the stereotype department. Of course, emergencies will arise, which must be cared for temporarily in the pressroom, but fundamental faults should be traced back to their cause and corrected at the source.

When first installed, rubber rollers should be checked frequently, not less than once a week, to discover if swelling is causing "hard set." This practice will prevent injury to the rollers and will result in better printing. The pressroom foreman should always bear in mind the fact that this type of roller does not shrink, but swells.

GRINDING AND FINISHING RUBBER ROLLERS

A good rubber roller will probably not need refinishing until it has been in use from one to three years, unless it has been abused, although a new roller will generally need regrinding sooner than one which has been reground. A roller should be refinished when it has swollen so unevenly that it will not cover the plates without "hard set" or when it is swollen so large that the adjustment of the roller sockets is not sufficient. The length of time that a roller has been in use is not a determining factor.

Several concerns make complete equipment specially designed for grinding and polishing rubber rollers. For any plant which can afford the investment, undoubtedly such equipment is cheapest in the long run. However in many cases such an outlay might be unsound, and for the benefit of

Continued on page 18

*Production Manager, Pittsburgh *Post-Gazette*, Pittsburgh, Pa.

New Web Dampening Device Gives Increased Brilliancy

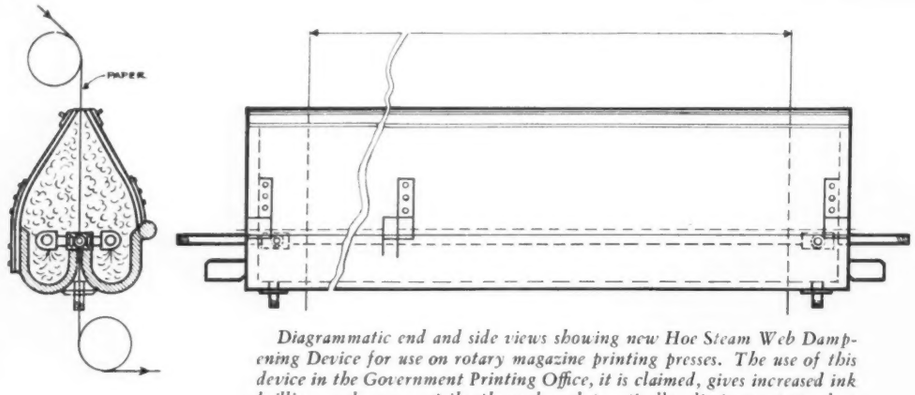
Rotary magazine printing presses at the United States Government Printing Office have been equipped with dampening devices for moistening the web of paper before entering the printing cylinders.

At the G. P. O. it is claimed that the principal advantages in the use of this new equipment are not only the increased brilliancy of the printing, but also increased coverage which decreases the strike-through since less ink is used per impression.

These devices also practically eliminate static electricity in the web, consequently resulting in fewer web breaks and improved web control and as evidence of their practicability, the Government Printing Office has included this important development in all latest rotary web press specifications.

This device is made the full width of the press and has inside of it two lengths of ¼ in. brass pipe which are connected with a steam supply. The paper passes through the steam box in a vertical direction and between the steam pipes which are perforated, the perforations being turned away from the paper, resulting in an even distribution of the moisture produced by the steam. The steam box is also provided with a hinged cover to provide free access to the inside of the box for leading in the web. This device has a hand-operated cut-off valve but, if desired, can be equipped with an automatic cut-off which automatically cuts off the steam when the press is stopped.

It is stated by officials of R. Hoe & Co., Inc., New York, that these devices can be added to new and existing presses of their own as well as other makes.



Diagrammatic end and side views showing new Hoe Steam Web Dampening Device for use on rotary magazine printing presses. The use of this device in the Government Printing Office, it is claimed, gives increased ink brilliancy, decreases strike-through and practically eliminate static electricity in the paper web.

K-28 Flux

Several inquiries have come to PRINTING EQUIPMENT ENGINEER regarding a German type metal flux known as "K-28" which has been introduced into the United States.

Upon investigation of a quantity of this flux submitted to us we find it contains charcoal and sal ammoniac and has no outstanding merit so far as we can determine.

English Group Entertained by Harris-Seybold-Potter

On August 2, Harris-Seybold-Potter of Cleveland entertained a group of students and instructors from the London School of Printing. This group, in charge of J. Stuart, assisted by two other instructors of the school, Mr. Esler and Mr. Kirk, was on its annual tour, stopping at Montreal, Toronto, Niagara Falls, Buffalo, Cleveland, the Century of Progress Exposition in Chicago, Washington, Philadelphia and New York, N. Y.

In Cleveland they were conducted through the printing press plant of Harris-Seybold-Potter and also visited a number of Cleveland's printing and lithographing establishments, including Nela Park of the General Electric Company, the Braden-Sutphen Ink Company, Addressograph-Multigraph Corporation and the Cleveland *Press*.

All these firms were happy to show the group every courtesy and the students remarked, on leaving, that their reception exceeded their wildest imagination.

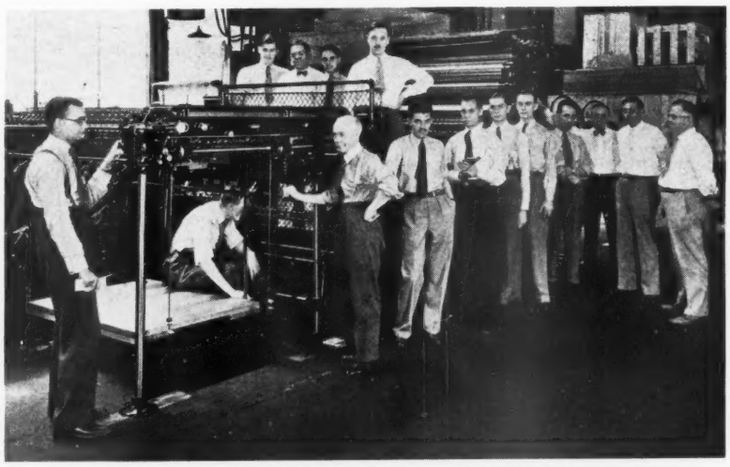
The picture shows the group inspecting a Harris two-color offset press which is being erected for shipment to England.

In the group was a student from Calcutta, India, and also the son of the Lord Mayor of London.

New York Offices of General Electric Moved

The General Electric Company and four of its associated companies have announced the removal of offices from 120 Broadway in New York, N. Y., to the new General Electric Building, 570 Lexington Avenue at 51st Street. Included are the executive offices, New York district office, air conditioning department, electric refrigeration department, Atlantic division of the Incandescent Lamp Department, Merchandise Department, and Plastics Department of the General Electric Company, and the General Electric Contracts Corporation, G. E. Employees Securities Corporation, General Electric Realty Corporation, and International General Electric Company, Inc.

Approximately 50 per cent of the new building is occupied by the General Electric Company.



Group of fourteen instructors and students from the London School of Printing inspecting a Harris two-color offset press in Cleveland.

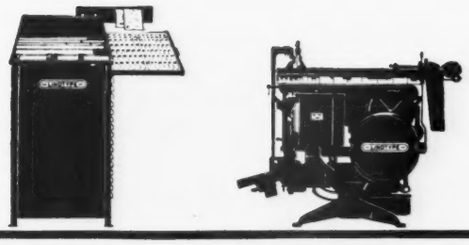
A P L

ALL-PURPOSE LINOTYPE

UNIVERSAL ALIGNMENT — TRADE LINOTYPE MARK — CONTROLLED ALIGNMENT

Casts all sizes from 5 to 144 point on slugs;

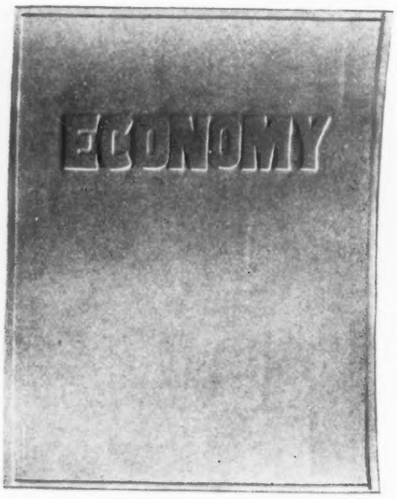
other useful products: **single type, space and base.**



Linotype Poster Bodoni and Metro Family

MERGENTHALER LINOTYPE COMPANY · BROOKLYN, NEW YORK

Impressions in Wood Dry Mats



There's economy in the use of Wood Dry Mats that is reflected in the cast you obtain.

The Wood Dry Mat is made to meet your particular requirements, thereby making certain the production of casts which are right—and economical.

Let us send a supply of Wood Mats for a trial—FREE.

WOOD DRY MATS
ALWAYS UNIFORM

WOOD
FLONG CORPORATION
HOOSICK FALLS, N.Y.

Rubber Printing Rollers

(Continued from page 15)

such plants, I give below a description of the necessary equipment which will prove adequate:

1. A heavy, rigid lathe is required. It must be strongly supported and mounted on a solid floor to prevent vibration. A cheap or light lathe will prove an expensive investment from any viewpoint. In grinding, rollers are driven by the chuck, both journals being supported in sockets, so that they will rotate as if in use. Rollers should never be ground supported from the centers.

2. The grinder must have good bearings as the slightest amount of play will cause spiral and chatter marks which are very difficult to polish out. It should be belt driven, as a gear driven grinder may cause the wheel to mark the roller. While in some plants the motor is mounted on the tool post with the grinder, it can be mounted on a housing built over the lathe bed. A 1 or 2 h.p. motor, about 1750 r.p.m., and variable speed control is ideal equipment, as even with rollers of the same make, variations in the speed of the wheel are necessary for the best work.

3. The most suitable wheel must be determined by experiment, based on the specifications of the roller and wheel manufacturers. Some recommend as coarse as 10 grit and others finer wheels up to 60 grit. The coarser the wheel the less is the tendency to load and burn the rubber during the grinding. A wheel built to stand up under speeds well in excess of 3500 r.p.m. should be selected. The wheel should be not less than 8 in. in diameter and, if over 1 in. in thickness, it should be grooved to allow for ventilation. Some operators use an electric fan or blower for cooling, but it is inadvisable to use a wheel or grinding speed which may burn the rubber.

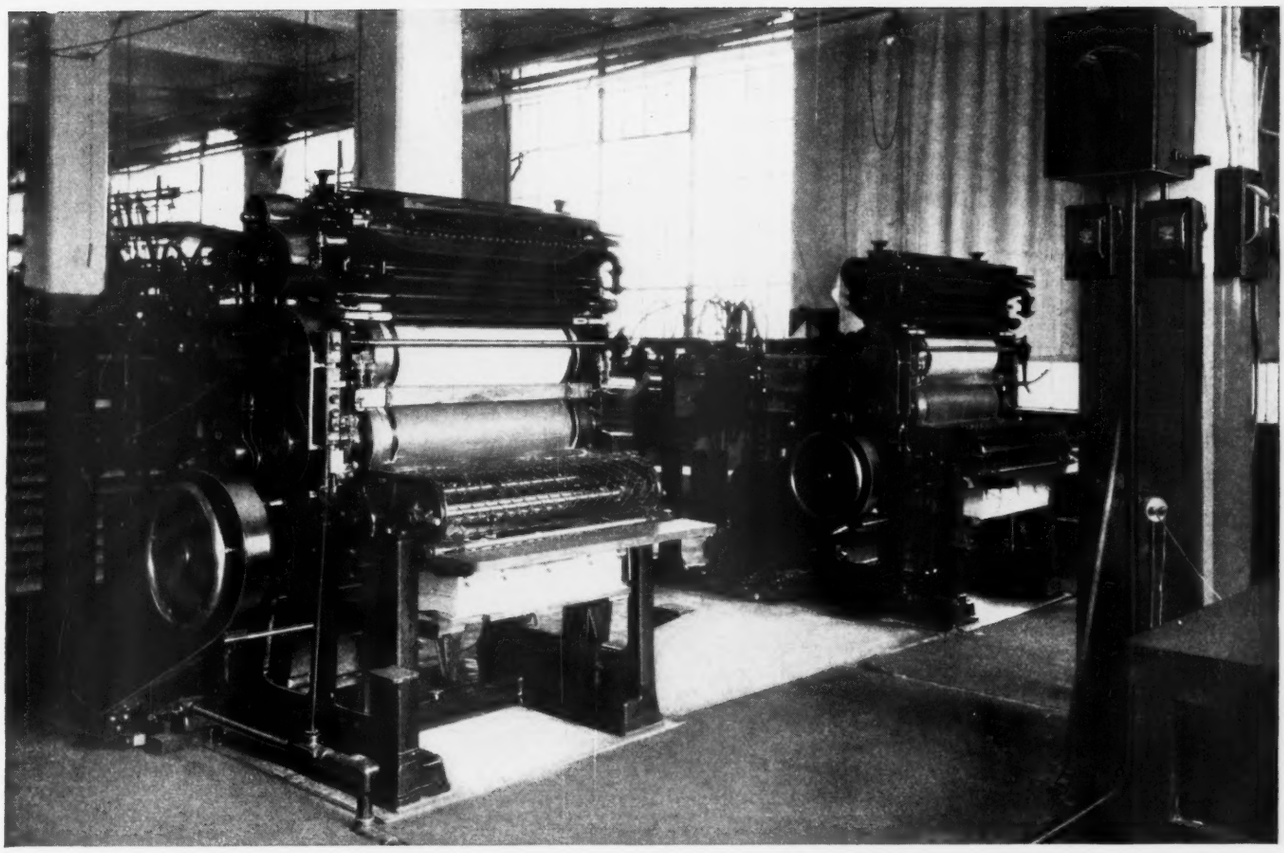
4. A commercial diamond dressing tool should be provided so that the operator will keep his wheels in good condition. Grinding will be quicker and cleaner and there is less danger of loading.

5. The roller can be polished on the lathe, but, if space is available, separate equipment may be more convenient. A polishing stand, heavy and rigid to prevent vibration, can be constructed of structural steel or with two permanent concrete pillars, on top of which roller sockets are mounted so that rollers will run on journals during polishing as in grinding. Allow space between stand and roller and for motor belt. Whether the roller is polished on the lathe or in a special stand, it must be belt driven from a separate motor, which should be 5 h.p., low speed, approximately 1150 r.p.m. As the roller is polished at the highest speed the operator can attain safely and this varies with the roller, variable speed must be provided either by the motor control or through pulley combinations.

6. As it is necessary after each grinding and during the polishing to examine the surface of the roller, a simple magnifying glass of about twelve power should be provided.

A clever machinist will develop auxiliary equipment which will make for more efficient operation in connection with the above equipment.

The man chosen to grind rubber rollers, must be careful, patient and painstaking. If he has not these characteristics he will not be successful. All possible information regarding grinding should be secured from the manufacturers of the rubber rollers in use in the plant. The operator should visit other offices which have had successful experience in grinding rollers. He should experiment with grinding and polishing one or two rubber rollers in order to get the "feel," as he will discover that working with rubber involves some radical departures from the usual practice in grinding metal. If he



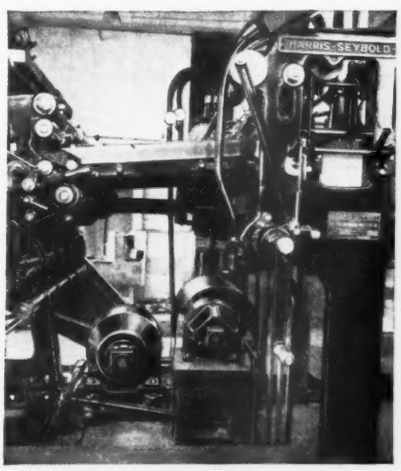
This plant has just installed two new Harris-Seybold-Potter Type EL, single-color, 22 x 34, offset presses equipped with G-E motors and control

IF YOU ARE INSTALLING OFFSET PRESSES

Assure yourself of utmost dependability - - Specify G-E motors and control

IF you are installing more presses to meet the trend to offset, make certain of satisfactory operation by specifying G-E motors and control. G-E electric equipment on your press stands for reliability, low maintenance, quality, convenience, economy — in fact, everything you look for in dependable operation.

All the facilities of General Electric stand back of the electric equipment on G-E motorized presses. This means the RIGHT motor and the RIGHT control on the press when you install it, and prompt, satisfactory service by competent men when you need it.



The G-E main-drive and blower motors

Detailed information on G-E equipment for offset presses — or for any type of press — can be easily obtained from the nearest G-E office, or direct from General Electric, Dept. 6C-201, Schenectady, N. Y.

200-745

GENERAL ELECTRIC

Can YOU Answer These Questions on Type Metal?

HERE is a chance to test your knowledge of type metal. We are giving below a list of questions on type metal that every mechanical executive should be able to answer. See how many you can answer. If you are not sure, send for a copy of "Everyday Problems of the Type Metal User and Their Solutions," published by the Imperial Type Metal Company. It is free. Here are the questions:

When is the Linotype Metal meeting best the requirements of the Composing Room?

At what temperature should monotype metal be re-pigged?
(a) Standard monotype.
(b) Special monotype.
(c) Foundry type.

At what intervals should stereotype dross be skimmed?

Name causes for stereotype plate breaking on the press.

What is meant by eutectic?

Whenever you have any questions concerning type metal, be sure to get in touch with the Imperial Type Metal Company, or one of our representatives. Imperial stands ready at all times to answer type metal questions as well as to supply you with type metals and service that will reduce your metal troubles to a minimum, and enable you to get better and sharper results at lower yearly metal cost.

Imperial METAL

THE IMPERIAL TYPE METAL CO.
Philadelphia · New York · Chicago · Los Angeles

attempts to hasten his education unduly he will get neither production nor speed.

GRINDING

Oil and ink must be thoroughly cleaned from the roller before grinding. The roller will grind best if thoroughly dried out, as oily or wet rubber loads the wheel.

Grinding is done at a roller speed of from 10 r.p.m. to 120 r.p.m. The manufacturer's grinding specifications will help to determine this speed. Recommended rates of feed vary from 1/32 in. to 1/16 in. per revolution.

The grinding speed with an 8 in. wheel will vary from 2500 to 3500 r.p.m., or a surface speed of 5000 to 7500 surface feet per minute, depending on the characteristics of both roller and wheel. As the edge of the wheel does the grinding, both edges should be slightly rounded to prevent traverse marks and the wheel should be set at a very slight angle to the roller to prevent the other edge of the wheel from dragging. The maximum cut taken should be 1/32 in. or less. It is better to take several cuts rather than attempt to take too much at one time. Unless the roller grinds perfectly and the surface is very good, polishing time will be saved and better results obtained by running the roller through for a light finishing cut.

The final cut must leave the roller with a good finish for polishing. If the roller still has chatter, lathe or wheel marks, the cause should be corrected as good results cannot be obtained in the polishing unless the surface is in good condition. Many pressmen consider distributors and ductors finished after the grinding operation, requiring only the form rollers to be polished.

POLISHING

This is the final test of the whole operation and of the roller itself. If the grinding has been satisfactorily accomplished, it should not take over half an hour to attain a highly polished surface.

Polishing is done at the fastest speed at which the operator can hold sand paper against the roller, which revolves away from him. If the roller is true and evenly balanced, he should be able to attain a speed at least 1200 r.p.m. The faster the speed, the quicker the polishing and the better the finish.

Before and during polishing the roller must be covered at all times with soapstone or talcum powder. Unless the roller has a poor surface for polishing, the first operation should be with grade 2 or 1 sandpaper, depending on the condition of the surface of the roller. The finishing polish should be given with 00 sandpaper. An even and light pressure of the sandpaper against the roller is all that is required and will give the best and quickest results. To examine the finish, touch the roller with a wet finger removing the surplus powder and the face of the rubber will be clearly revealed for examination with a magnifying glass.

After the roller is polished, the ends, unless otherwise protected, should be shellacked. When the roller is completed, it should be carefully washed with a mild soap and water to remove the powder, immediately dried and treated with ink or boiled linseed oil as recommended for a new roller. The date when the roller is placed in use again should be recorded.

WASHING ROLLERS

One of the greatest advantages of rubber rollers is that they never need be washed, if used only with news ink. Inasmuch as a penetrating oil is one of rubber's worst enemies, it is important, when cleaning the press, that no kerosene be spattered on rubber rollers and that, if this happens, the oil be immediately wiped from the rollers.

If it is necessary to wash rubber rollers, carbon tetrachloride, high test gasoline (not ethyl) or benzine should be used. Kerosene should be placed on the "forbidden" list.

In all cases, when using a petroleum product, be sure that no surplus is left on the roller to be absorbed by it. Never rub

the roller hard with a coarse wiper and it is always safer to use a sopping motion or rub very gently with an even pressure. Hard pressure with a wiper will injure the surface of the roller, destroy its printing surface, open up the rubber and allow oil from the ink to penetrate unduly.

STORAGE OF RUBBER ROLLERS

Rubber rollers should always be stored in a dark, reasonably cool and dry room. Daylight is one of rubber's enemies. When stored they should be washed carefully and powdered with a mixture of talc or soapstone and stood perpendicularly, not hung horizontally.

If retained on a press unit which is not in operation, they should be coated with news ink occasionally.

RUBBER ROLLERS IN OTHER FIELDS

While successfully employed in lithography, offset printing, magazine work, job, book, poster and box printing, there is a decided limitation on the usefulness of rubber rollers where driers or varnishes are carried in the inks used. The drier, which is an oxidation agent, attacks the rubber and deteriorates it rapidly.

The Latest Printing Equipment Mechanisms

New Hacker Block Leveller

A new Hacker Precision Block Leveller, in the design of which has been incorporated the principle of end-milling wooden cut-mounting base while clamped upon a revolving table, has been announced by the Hacker Manufacturing Company, 320 South Honore St., Chicago, Ill.

Several advantages are claimed for this machine in that every part of the work passes under every part of the cutting edges of a high-speed milling cutter; the strain on the machine is very slight, freeing it from distortion; the one-piece cutter is easy to mount and no adjustment is required for alignment. A feature of the mechanism is the clamping device which holds the block in two positions: *Neutral*, to obtain a flat surface on warped blocks, and the *Hold-down*, to pull blocks down solidly against the work table for the finishing cut.

This new model Block Leveller is 9 in. x 15 in. in size. It is built to the same mechanical principles as the larger and older machine which include a revolving work table and an end-milling cutter revolving at high speed and moving on a radial arm across the work from the outside to the center and back. The machine has two motors, one driving the cutter through V-belt and pulleys, the other, the work table through a speed reduction unit. The chips are drawn away by a vacuum impellor built into the head around the cutter and which are deposited in a box at the rear. The height adjustment can be made instantly by means of a hand wheel at the top of the post. The wheel need not be locked. Any height, in thousandths, can be made in one cut.

Seybold "Quick-Space" Cutter and Trimmer

A new improved cutter and trimmer known as "Quick-Space," has just been announced by Seybold Machine Company Division of Harris-Seybold-Potter Company, Dayton, Ohio. This cutter is provided with a quick-acting spacing device which it is claimed, is simple and accurate in operation.

On-the-Minute Certifieds

No. 7 of a Series of Whys and Wherefores of Certified Dry Mats

The minute or more saved in molding and scorching Certified Dry Mats plus the minute or two saved in casting, because the first one or two plates are not generally lost with Certified Dry Mats, means sufficient time saved to get papers on the street in record time day in and day out. It means that difficult train schedules and routes that demand on-the-minute edition time hold no terrors for plants depending on Certified Dry Mat performance.

Starting with the composing room where the easy molding qualities of Certifieds are a boon, and following through to the stereotype foundry where the speed of Certifieds enables the production of plates in the shortest possible time, and then on into the pressroom where the quality of the plates so speedily produced means on-time delivery of well-printed papers, you will find that Certified dependability benefits each and every department of newspaper production.

Mechanical staffs in composing room, stereotype foundry and pressroom, as well as executives in business office, editorial sanctum and advertising and circulation departments in hundreds of newspapers certify to Certified performance by showing their preference for Certified Dry Mats.

You, too, are respectfully invited to check Certified Dry Mat performance in your own plant under your own working conditions. Samples for such a demonstration will be furnished free of charge and without obligating you in any way.

We are gladly at your service.

Certified Dry Mat Corporation,
342 Madison Ave.
New York, N. Y.

(Date)

Gentlemen:

You may enter our order for prompt shipment of_____case(s) of Certified Dry Mats as checked below:

☐ Check 15c Ace mats f.o.b. West Groton, Mass.

☐ Check 12c Certifieds f.o.b. West Groton, Mass.
(Cases contain 500 mats, 20" x 24")

▼ ▼ ▼

Please send samples of ☐ 15c Ace Mats ☐ 12c Certifieds free of charge and without obligation.

Please be sure to check specifications.

THICKNESS
☐ .024/5"
☐ .027/8"
☐ .031/2"
☐ .035/6"

SHRINKAGE
(Mill Moistened)
☐ 1/4"
☐ 3/8"
☐ 1/2"
☐ Unconditioned Special Size

Name_____ Address_____

By_____ Title_____

LUDLOW PRODUCTION ECONOMY

Production Economy Counts

FOR MANY YEARS, Ludlow users have been getting these specific production advantages:

All-slug make-up, the merits which are too obvious to require argument.

Production of composition direct from hot metal, without previous expense for casting type or spaces, for case-laying, etc.

The greater efficiency of "gathering" flat matrices a number at a time, instead of picking up types one at a time.

The greater ease of spacing with matrices—eliminating entirely the necessity of spacing "tight-to-lift."

The resources of unlimited type supply obtained when display is set in matrices.

A wide range of point sizes available on the same machine without necessity of mold changes.

The simplicity—in both construction and operation—which enables any compositor to operate the Ludlow effectively.

A fine selection of typefaces, both modern and traditional, available on the Ludlow in matrix form.

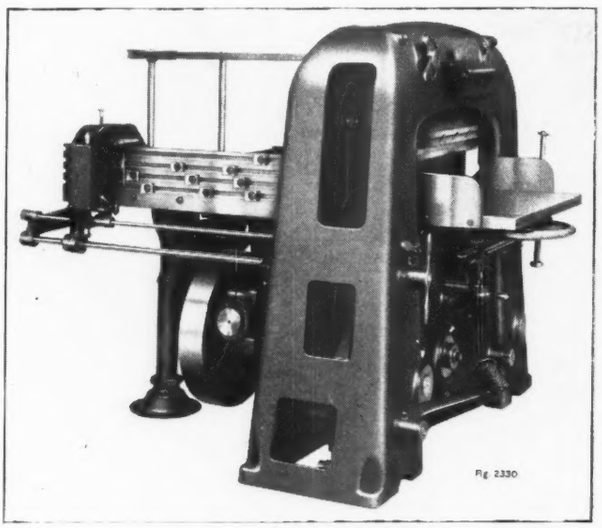
THESE LUDLOW FEATURES have helped Ludlow users, who recognized the advantages of all-slug composition to save production expense. These same features of a time-tried system will help you to greater composing room economies today. The facts await your request.

Ludlow Typograph Co.
2032 Clybourn Avenue, Chicago, Ill.

SET IN LUDLOW TEMPO BOLD CONDENSED AND GARAMOND

The machine is loaded from the front and the work is fed back to the operator quickly and accurately by means of the "Quick-Space." Sequence of cuts, as in tablet and book work are repeated exactly and rapidly.

At the side of the cutter and trimmer is mounted a gauge board equipped with several rows of adjustable stops. These stops may be set from fixed scales to give any desired sequence of spacing from zero to the size of the machine. A traveling



carriage containing automatically-controlled plunger stop pins is rigidly attached to the back gauge and the whole easily moved by a conveniently located quick-acting handwheel. The entire gauging mechanism is mounted on roller bearings.

The knife action automatically indexes the "Quick-Space" so as to place the next succeeding stop in position. The operation of the machine is simply that of throwing in the cutting mechanism as in an ordinary cutter and then pulling the back gauge up to the next stop or cutting position. It is not necessary for the operator to read the tape, thus eliminating the element of human error.

The "Quick-Space" cutter and trimmer is readily convertible to and has all the features and uses of a standard cutter.

Other features are foot treadle clamp movement, automatic clamping, three-piece fingered back gauge, steel indication tape for use in general cutting work, safety washer drive, and non-repeat device. The starting lever is of the one-hand, two-motion type, making for increased safety on the part of the operator. A shielded light is provided for illuminating the scale and the working portion of the table immediately below the knife and clamp. The entire mechanism of the machine is fully enclosed within the massive, one-piece frame, yet all parts are readily accessible.

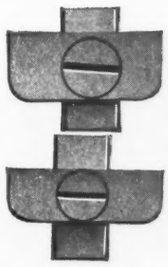
Forms Sales Corporation

In line with what other large corporations are doing for greater effectiveness in administration, and in order to separate accounting between manufacturing and sales, the American Type Founders Company has formed a new selling company. The name is American Type Founders Sales Corporation which started operation August 14.

President T. R. Jones announced that all present branch managers of the original company have been appointed as managers of the new sales corporation. All distribution and purchasing for resale of the future will be carried in the name of the sales corporation.

Officers and directors of the sales corporation are the same as for the American Type Founders Company and will function as the old company in all respects, as far as customers are concerned.

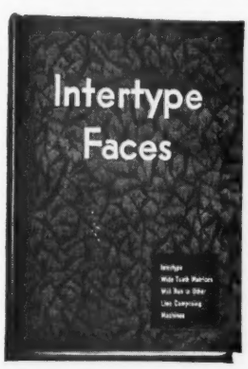
New Sterling Vee Slot Hook



Regular and Narrow Margin Sterling Vee Slot Hooks

A new margin Vee Slot Hook has just been put on the market by the Printing Machinery Company, Cincinnati, Ohio. Several months ago the Sterling Vee Slot Hook with a jaw 3/8 in. wide was announced. In the announcement at that time H. T. Simpson, president of the Printing Machinery Company, revealed that the jaw of the Sterling Vee Slot Hook was being made from a special alloy steel, heat treated in an electrically controlled furnace. This permitted the regular jaw to be made 1/8 in. narrower than the usual Vee Slot Hook. Now the company is making a Vee Slot Hook with the jaw less than 5/16 in. width. This narrow margin jaw is also made from the same alloy steel as the 3/8 in. jaw. However, the big feature of both these hooks is the special alloy steel screw. The screw is the most important part of a Vee Slot Hook and the Sterling Vee Slot Screw for either the narrow margin or regular width jaw, it is claimed, is many times stronger than the ordinary screw.

Issues New Type Specimen Book



Intertype announces the completion of a new type specimen book.

This book is 8x11 in. in size and contains 518 pages printed in black and blue ink on white coated paper direct from Intertype slugs.

The book is bound in loose leaf covers made of blue fabrickoid and gold stamped. Faces are alphabetically arranged and exhibits are shown in paragraph style for easy comparison.

The specimen printing department of Intertype produced the book and a sufficient number of copies were printed to supply all printers and users of line composing machines who are interested in the latest type faces cut on Intertype wide tooth matrices.

This new book will be sent free upon request to Intertype Corporation, 360 Furman Street, Brooklyn, N. Y., or its branch offices in Chicago, San Francisco, Los Angeles, New Orleans and Boston.

Logotypes made specially for food store advertising composition are announced by Intertype. These logotypes consist of a double or single line of 8-point type as shown below.

The words "No. 2 cans" and "bunches" are each made on one large mat, dropped into the line of price figures, and the

3 No.2 cans 28c | 2 bunches 27c

line is cast ready for makeup. No cutting or overhanging slugs is necessary.

These mats are made in both Vogue Bold and Ideal News Bold in a large and complete assortment of word combinations. They are made to align at the bottom with 18-point figures as shown above, but the same mat can be used with larger figures, the only difference being that the larger figures extend below the regular alignment of the logotype.

We are Partners

YOU MEN in the stereotype rooms and we men here in our Laboratories are partners.

We are partners in the job of producing better printing with stereotypes. We develop the mats. You use them.

Behind our laboratory equipment we are always trying to find something that is new and better---to pass on to you.

This spirit is what has helped us to rejuvenate the dry mat industry in four short years.

And we know that we will only sell mats by serving you and the industry. Whether you use Burgess Chrome Mats or not, the facilities of the Burgess Laboratories are always ready to tackle your problems.

Just tell us what they are.

•

THE CHROME FORMULA

The Chrome Mat Formula gives Burgess Chrome Mats their superior printing characteristics—makes them easier to handle — reduces troubles —cuts costs.

•

BURGESS CELLULOSE COMPANY
FREEPORT, ILLINOIS

CHROME MATS

A Laboratory Product

New Model

HACKER BLOCK LEVELLER

Size 9″x15″

Price: $750.00

Here is a new planer which in size and style fits the needs of both printer and plate maker.

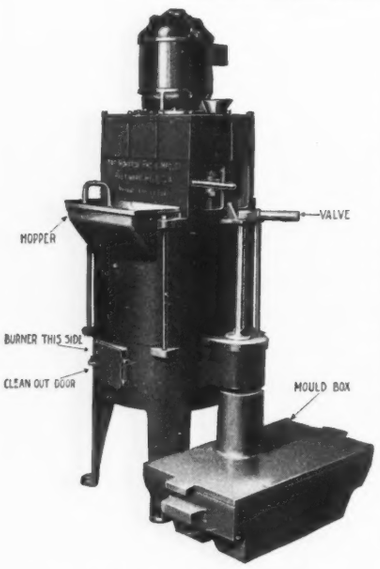
Built to the same unique principles as our larger 12″ x 18″ machine.

This precision finishing planer gives more accurate blocks resulting in less makeready.

HACKER MANUFACTURING CO.
320 SOUTH HONORE STREET CHICAGO

THE MONARCH METAL RENOVATOR

is used in stereotyping departments for the direct reclaiming of new metal from dross.



It occupies but two and one-half feet of space and is placed preferably near the larger stereotype pots from which the dross is skimmed. The dross can be immediately thrown into the Renovator, thus eliminating storage of same in cans and the packing for shipment to the smelter.

The Monarch Metal Renovator will reclaim from 65 to 75% new metal from your dross, thereby effecting a substantial saving and maintaining the quality of your metal.

Write for Catalog P.E.E.

The Monarch Engineering & Mfg. Co.
701-702 American Bldg. Baltimore, Md., U. S. A.
WORKS, CURTIS BAY, MD.

First Gannett Group Mechanical Conference

THE first annual group mechanical conference of the Gannett Newspapers was held in Elmira, N. Y., July 17-18. General Manager Frank Tripp called the group together Monday morning at 9:30. Forty-five Gannett mechanical department heads and four visitors were present.

All phases of modern newspaper mechanical executive practice were discussed, including a paper delivered by M. V. Atwood, associate editor of the Group at the Monday afternoon session on "The Relations of the News Room with the Mechanical Departments."

Wm. W. Spaulding, engraving department foreman, Albany, presided at the first session after the preliminaries were over. At the Monday afternoon session Joseph Estabrook of Utica presided. Tuesday morning, Martin Redmond, Hartford, Conn., stereotype foreman, presided. John Mosher, foreman of the Rochester *Times-Union* pressroom, presided at the Tuesday afternoon session.

The mechanical executives felt that the interchange on technical ideas was beneficial to all those attending the meeting.

At the Tuesday morning session it was brought out that in a number of the Gannett Group stereotype departments it is the practice to "bump" halftones, from which very good results have been obtained, as follows:

> Two sheets of underlay, of from 0.006 in. to 0.008 in. thick are pasted on the back of the cut. Both underlays are cut from under the highlights, and one underlay is cut from under the middletones. This leaves the solids from 0.014 in. to 0.016 in. above type high. In the case of a national ad having an illustration containing a quantity of highlights, "bumping" the illustration will sometimes prevent the filling in of the highlights on the press.

Hudson With Herald-Examiner

The many friends of Fred Hudson, until recently mechanical superintendent of the Pittsburgh *Press*, will be interested to know that during the forepart of August he became associated in an important capacity with the production department of the Chicago *Herald-Examiner*.

Floyd Wilder Passes On

Floyd Wilder, production manager in charge of printing the Hearst magazines and the Eastern Division of the American Weekly and Hearst colored comic papers, passed away August 12, after an illness of several weeks.

Masonic funeral services were held Monday evening, August 14, in New York.

Mr. Wilder had been chairman of the Printing Industries Division of the American Society of Mechanical Engineers and presided at the annual convention last June in Chicago.

He was one of the four original organizers of the New York Club of Printing House Craftsmen and became its vice president. This organization later developed into the National Association of Printing House Craftsmen.

Exposition Of Type Making

The American Type Founders Company had a very interesting and instructive exhibit at the Craftsmen's Convention at Chicago. It presented a complete exposition of type making from the year 1445 to 1834, then on down to the present time. It showed 48 distinctive steps covering the whole period from the date of the first hand-moulded type through all the improvements of 500 years in punch cutting and matrix making, displaying the modern improved machines, devices and processes.

Recent Printing Patents

Printed copies of patents are furnished by the Patent Office at 10 cents each. These may be obtained by addressing the Commissioner of Patents, Washington, D. C.

1,894,860. LINERLESS MOLD CAP. Arthur L. Gagne and Joseph A. Snyder, San Francisco, Calif., assignors to Intertype Corporation, Brooklyn, N. Y. Filed Dec. 8, 1930. Serial No. 500,910. 9 Claims. (Cl. 199 — 55.)

1. The combination with a line-casting machine having a mold disk, of a mold disposed in the disk and having an upper and a lower half, and means entirely disposed within the boundaries of the mold for adjusting one of the halves while the mold is still in the mold disk for forming slugs of different point sizes.

1,920,400. MEANS FOR MAKING REGISTERED PRINTS. Harry C. Jones, New York, N. Y. Application May 16, 1929. Serial No. 363,467. 21 Claims. (Cl. 95 — 76.)

1. In a device for making registered prints, a pair of frames each provided with means for holding a negative, and connections, including means for adjusting one of the frames in relation to the other frame, whereby to obtain predetermined relative positives of the negatives, the connections being fixed on the respective frames.

1,920,405. PROCESS OF MAKING FINE LINE PRINTING PLATES. Joseph Kornmann, Cincinnati, Ohio. Application May 14, 1930. Serial No. 452,401. 3 Claims. (Cl. 41 — 46.)

1. The method of making a fine line printing plate which consists in first mechanically sinking a design in a master plate, applying a coating of ink to the master plate without filling in the sunken design, transferring the coating of ink to a transparent sheet, and utilizing the sheet as a photographic negative to produce the printing plate.

1,920,424. INKING MECHANISM. Samuel J. Mollett, Massillon, Ohio. Original application February 28, 1929, Serial No. 343,523. Divided and this application June 27, 1930. Serial No. 464,158. 6 Claims. (Cl. 101 — 351.)

1. The combination with a form cylinder, of an inking mechanism comprising a frame, a plurality of ink transferring rollers journaled in the frame, one of the rollers being contiguous to the form cylinder, an ink pan in which one of the rollers operates, and means for detachably supporting the ink pan on the frame comprising pivoted supporting members, one at each end of the frame movable into and out of pan supporting position, and releasable means for holding the members in pan supporting position.

3. In a printing press, the combination with a form cylinder of a carriage mounted for movement toward and away from the form cylinder, a frame slidably mounted on the carriage for adjustment in the direction of movement of the carriage, inking mechanism mounted on the frame including a roller adjacent the form cylinder, means for adjusting the frame on the carriage, a fixed stop for limiting the movement of the carriage toward the form cylinder, springs acting on the carriage to hold the same against the stop, and manually controlled means for shifting the carriage in opposition to the spring.

1,920,399. PHOTO-COMPOSING MACHINE. Harry C. Jones, New York, N. Y. Application February 26, 1927. Serial No. 171,126. 37 Claims. (Cl. 95 — 76.)

1. In a photo-composing machine, a pair of stationary uprights rigidly held in spaced relation, an open frame movable between the uprights in a plane parallel with their faces, a press plate carried by the frame, and cam actuated means for moving the frame and plate towards and from the body of the machine.

1,920,616. PRESS UNIT DRIVE. Henry A. Wise Wood, New York, N. Y., assignor to Wood Newspaper Machinery Corporation, New York, N. Y., a Corporation of Virginia. Application February 9, 1931. Serial No. 514,375. 3 Claims. (Cl. 101 — 220.)

1. In a printing press unit, the combination with the printing couples of a motor for operating the press located inside the press immediately beneath the printing couples, and means for driving one of the cylinders of the printing couples directly from the motor.

1,920,832. TYPOGRAPHICAL COMPOSING MACHINE. William Ackerman, Towners, and George P. Kingsbury, Hollis, N. Y., assignors to Mergenthaler Linotype Company, a Corporation of New York. Application September 11, 1929. Serial No. 391,752. 10 Claims. (Cl. 199 — 29.)

1. In a typographical composing mechanism, the combination of a magazine containing a set of two-character matrices, escapements controlling the release of the matrices therefrom, a series of power-operated reeds for actuating the escapements, a corresponding series of slides controlling the operation of the reeds, a series of locking bars cooperating directly with the slides and movable to active or inactive position singly or in groups to establish different combinations in controlling the operation of the individual reeds, an assembler wherein the released matrices are composed in line, an auxiliary rail section mounted in the assembler and adjustable to different positions to control the level at which the matrices are composed, electrical means for operating the rail, a perforated tape feed mechanism, means responsive to certain symbols in the tape for operating the locking bars, and means responsive to other symbols in the tape for controlling the operation of the assembler rail section.

1,921,410. GALLEY. George M. Hume, Fresno, Calif. Application February 23, 1932 Serial No. 594,451. 13 Claims. (Cl. 276 — 40.)

1. A galley for receiving type for making up a type form comprising a tray provided with sides arranged and adapted for supporting adjacent sides of the form, and means mounting the first mentioned sides for movement in a plane perpendicular to the plane of the tray.

1,921,443. BEARING FOR ROTARY PRINTING MACHINES. John R. Tomlin, Brooklyn, N. Y., assignor to R. Hoe & Co., Inc., New York, N. Y., a Corporation of New York; Irving Trust Company, Receiver. Application March 4, 1930. Serial No. 432,996. 5 Claims. (Cl. 101 — 219.)

1. In a rotary printing machine, a printing couple comprising a form cylinder and an impression cylinder, journals on the cylinders, bearings for the journals, roller ways on the cylinder concentric with their axes, and rollers arranged to bear against each other and against the roller ways and thereby hold the journals against the outer sides of the bearings.

1,921,167. SHEET FEEDING APPARATUS. John Perry, Pearl River, N. Y., assignor to Dexter Folder Company, New York, N. Y., a Corporation of New York. Application July 13, 1928, Serial No. 292,510. Renewed October 19, 1931. 42 Claims. (Cl. 271 — 50.)

1. The combination with sheet feeding means and sheet registering means, of a reciprocating front stop movable bodily past the sheet registering means and adapted to stop the sheet rearwardly thereof, and means for pulling the sheet up to the sheet registering means comprising a pull-up member arranged to engage the under side of the sheet on the forward part thereof and connected with the reciprocating front stop.

1,921,313. METHOD OF PREVENTING OFFSETS. Edward C. Francoise, Parchment, Mich., assignor to Kalamazoo Vegetable Parchment Company, Kalamazoo, Mich. Original application July 29, 1929, Serial No. 382,046. Divided and this application March 16, 1931. Serial No. 522,989. 3 Claims. (Cl. 101 — 416.)

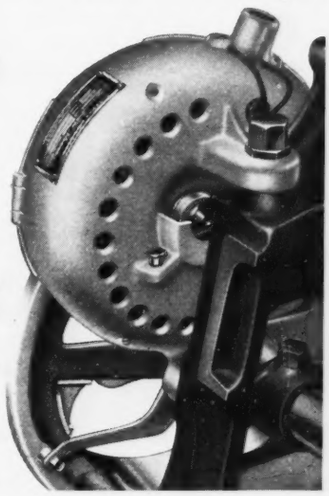
3. The method of preventing offset in printing consisting of printing a web of paper, applying a substantially continuous coating of liquid paraffin exclusively to the reverse side of the web, and next chilling before substantial penetration of the paper by the paraffin, and rolling the web of paper upon itself whereby the printed surface is brought into contact with the paraffined surface.

1,921,340. GUIDING DEVICE FOR SHEET WORKING PRINTING PRESSES. Nikolaus Becker, Durlach near Karlsruhe, Germany, assignor to Schnellpressenfabrik Aktiengesellshaft Heidelberg, Heidelberg, Germany. Application February 24, 1931, Serial No. 517,946, and in Germany February 25, 1930. 5 Claims. (Cl. 101 — 272.)

1. Control system for a cylinder printing press of the type having an impression cylinder, a reciprocating type bed, means for automatically feeding the sheets to be printed, and means for driving the press, the system comprising in combination, a device for starting and stop-

No Other Composing Machine Motor has all of these Advantages

CUSHMAN OFFSET MOTOR



The Cushman Offset Motor has these exclusive features:

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2. Its pinion can be removed by taking out three cap screws.
3. It can be installed in 10 minutes.
4. Needs little attention.
5. Has three-point suspension and is offset.
6. Has DC brushes and back oil ring immediately accessible.
7. Its large gear can easily be removed by loosening a clamping screw and pulling off.

We suggest that you let us send you a Cushman Offset Motor on trial.

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Then surely you should avail yourself of our "Parts Reclamation Department."

LET US RECLAIM FOR YOU—

First Elevator Jaws, assembled
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Two Cottrell rotary magazine presses. One with two folders for 64-page magazine size and for 8½"x11½" page. The other press takes 16-page text, covers and staples, 2-up, page size 8½"x11½". These presses in good condition and being replaced by presses of greater speed and page capacity. Address The Christian Science Publishing Society, One Norway Street, Boston, Massachusetts, c/o the Production Department.

ping the sheet feeding means, a device for starting and shutting off the printing operation, and means for starting and stopping the driving means of the press, the devices being connected to the means for starting and stopping the driving means of the press and so arranged that upon starting or stopping the press the individual devices are respectively started or stopped, in succession in a predetermined sequence.

1,922,031. MATRIX. John A. de Goyer, Oak Park, Ill. Application January 4, 1932. Serial No. 584,662. 9 Claims. (Cl. 101 — 401.2.)

4. The method of preparing a standard type matrix for casting type having high type faces which comprises filling the intagliated portions of the matrix with heat resistant material, building up a pool of metal to the desired thickness onto the face of the matrix, by the application of heat, cooling the matrix, and then clearing out the intaglio of the matrix.

1,922,041. SHEET FEEDER. Charles W. Harrold, Cleveland, Ohio, assignor to Harris-Seybold-Potter Company, Cleveland, Ohio, a Corporation of Delaware. Original application April 10, 1928, Serial No. 268,825. Divided and this application May 9, 1930. Serial No. 450,961. 9 Claims. (Cl. 271 — 53.)

1. In a sheet feeder, sheet-holding means, an oscillatable sheet-feeding member having sheet grippers, means for shifting said member further rearwardly against the sheet at the end of the reverse stroke, and means for closing said grippers on the sheet during said reverse stroke of said member.

1,922,372. METHOD AND APPARATUS FOR PREVENTING OFFSET IN PRINTING. Theodore E. Knowlton, New York, N. Y. Application August 30, 1930. Serial No. 478,840. 20 Claims. (Cl. 101 — 422.)

1. A method of preventing offset in printing characterized by printing a blank sheet upon one face, supporting the sheet on a smooth-surfaced, non-absorbent metal layer, and then printing the sheet on the reverse side.

1,922,514. STEREOTYPE CASTING APPARATUS. Edwin L. Wilson, Chicago, Ill., assignor to Popular Mechanics Co., Chicago, Ill., a Corporation of Illinois. Application October 29, 1932. Serial No. 640,292. 10 Claims. (Cl. 22 — 2.)

1. A device of the kind described comprising a support, a slide reciprocably mounted thereon, an upright form member rigid on said slide, a complementary form member movably mounted on said slide, a matrix retainer frame associated with one of said form members and interposed between said members when the latter are in cooperation with each other and means for forcing molten material into the space between said members and surrounded by said frame

Catalogs, Books and Bulletins

Readers of PRINTING EQUIPMENT ENGINEER who are interested in securing any of the catalogs, books or bulletins listed below can do so by checking the literature desired. Mark carefully only that literature which you wish to receive. Fill out the coupon and send it to us. The literature will be forwarded without cost except where noted.

Kabel Light Italic and Kabel Bold Italic—Booklet printed in red and black showing specimens and sizes.

Hand Tachometers—Circular No. 106 describes the new Automatic Fixed Reading Tachometer for speed measurement of revolving equipment, such as motors, pulley shafts, belt surfaces, etc.

Simple Testers—Circular No. 107 describes a new portable Bursting Strength Tester, new Tensile Strength Testers, a new Pocket Thickness Gauge—all designed for rapid testing of materials such as paper product supplies, cordage, rubber, wire, etc.

Humidity Instruments—Bulletin No. 108 describes direct-reading precision Hygrometers, Recorders, and other simple instruments used for determining air conditions accurately.

Printing Equipment Engineer,
1370 Ontario St., Cleveland, Ohio.

Gentlemen: Please send the literature checked above without obligation.

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Attention of_____

Position_____ Dept._____

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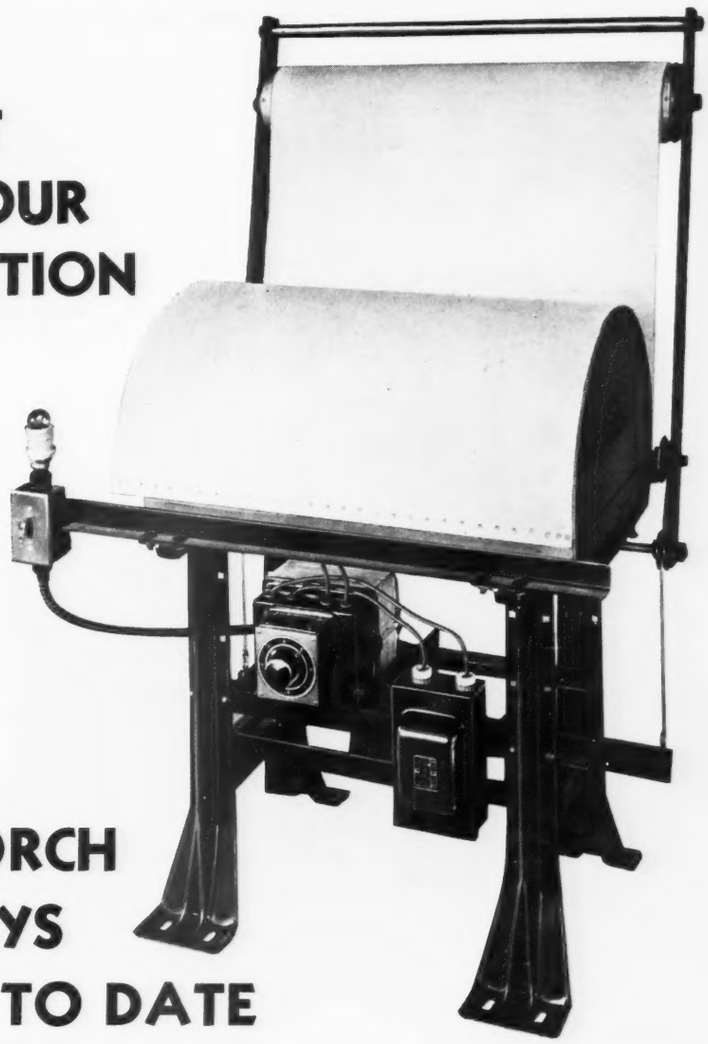

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There is a very pertinent reason for the ever-increasing sales of the Form-O-Scorch. Many of these sales are the result of one publisher recommending the machine to another—for wherever a Form-O-Scorch machine is "on the job" it gives complete satisfaction in every respect.

The Form-O-Scorch is an economical investment that soon pays for itself in the saving of time, labor and electric power. It produces perfect mats accurately shaped and scorched without buckling or warping.

Form-O-Scorch mats are evenly surfaced and re-casts and re-molds are reduced to a minimum.

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Certified Dry Mat Corporation, New York City.
George Russell Reed, Jr., San Francisco, Cal.
Mr. I. R. Burton, Special Representative, 2823 Forest Ave., Kansas City, Mo.

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- Advertisers know this and they will seek the printer who can furnish the latest and most popular type faces.
- The latest Intertype faces are made on Wide Tooth Matrices and are shown in this big New Book of Intertype Faces.

Actual Size
8 x 11 Inches
518 Pages

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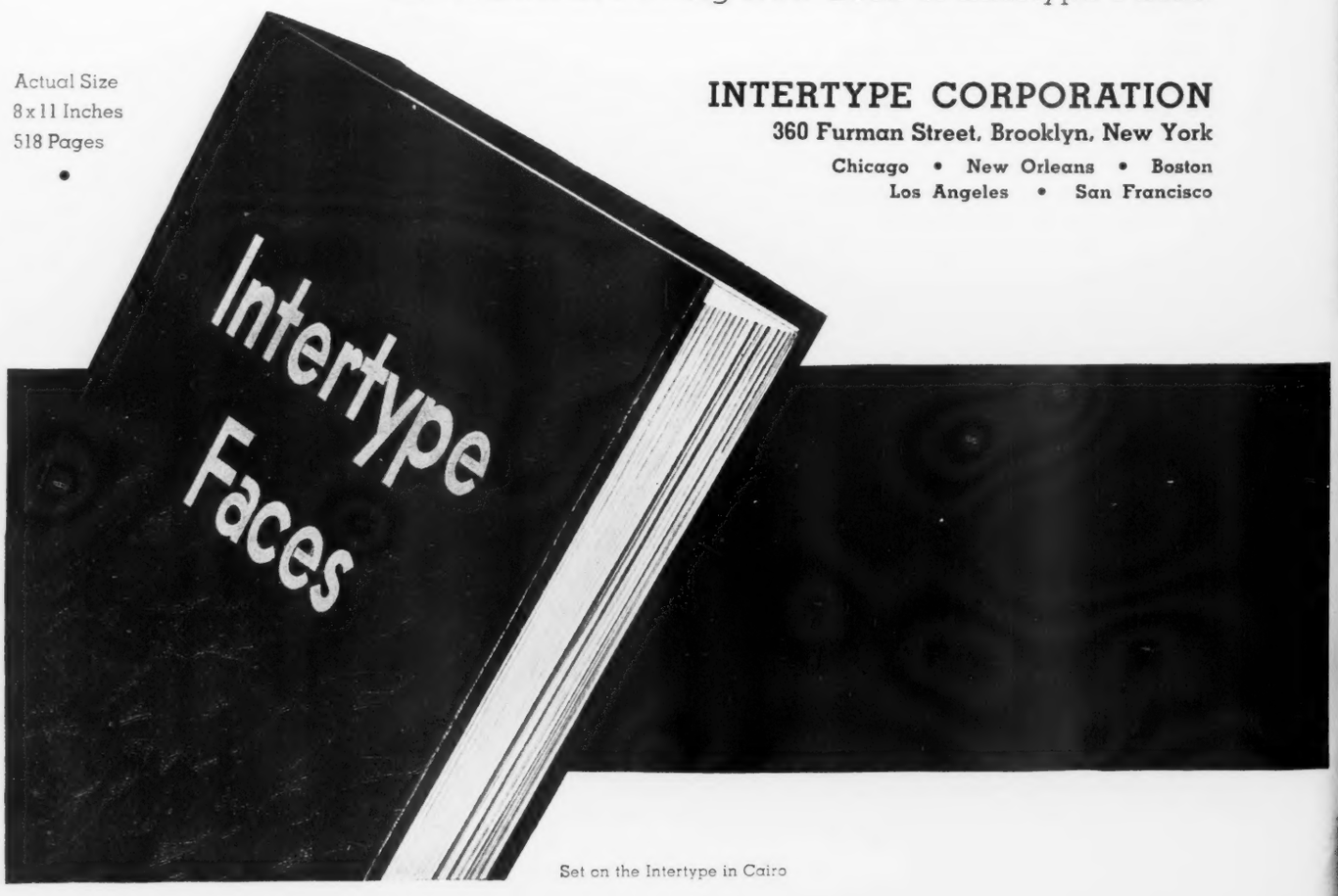

Set on the Intertype in Cairo